GeoTimes

Professional News Magazine

ANNIVERSARY ISSUE

October 1958

Volume III, No. 3
Published by the
American Geological Institute

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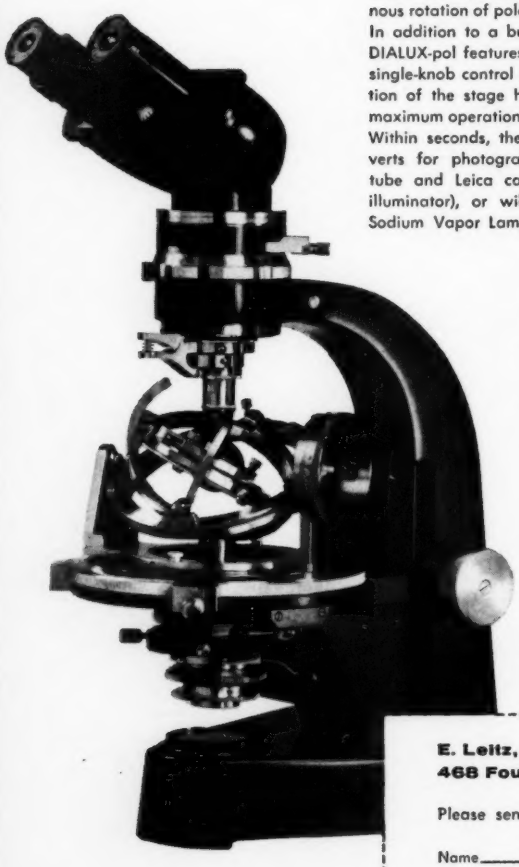

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Calendar

Cooperation of Society Secretaries in supplying meeting notices for GEOTIMES calendar is requested.

Oct. 2-4, 1958—8th ANNUAL DRILLING & BLASTING SYMPOSIUM, sponsored jointly by Colo. School of Mines, Penn State University and the University of Minnesota, at the Univ. of Minn. Write: Center for Continuation Study, University of Minnesota, Minneapolis 14, Minn.

Oct. 5-8, 1958—AIME: SOC. PETR. ENG., Ann. Fall Mtg., City Coliseum—Rice Hotel, Houston, Texas.

Oct. 9-11, 1958—OPTICAL SOC. OF AMER., Ann. Mtg., Statler Hotel, Detroit, Michigan.

Oct. 10, 1958—GEOLOGICAL SOCIETY OF KENTUCKY, Ann. Fall Dinner Mtg., Lexington, Ky. Write: Dr. Erwin J. Lyons, Dept. of Geology, University of Kentucky.

Oct. 13-16, 1958—SEGp: 28th Ann. Meeting, Gunter Hotel & Municipal Auditorium, San Antonio, Texas.

Oct. 16-17, 1958—AIME: Southern California Petroleum Sect. Fall Meeting, Biltmore Hotel, Los Angeles.

Oct. 17, 1958—APPALACHIAN & PITTSBURGH GEOLOGICAL SOCIETIES, Second joint meeting, Mont Chateau Lodge, Morgantown, W. Va.

*Oct. 20-23, 1958—SEVENTH NATIONAL CLAY CONFERENCE, U.S. National Museum, Washington, D. C. Field trip Oct. 20 to areas in NE Maryland and northern Delaware.

Oct. 22-25, 1958 — AAPG, Southwest Regional Meeting, sponsored by SW Fed. of Geol. Socs., City Auditorium, Mineral Wells, Texas. Field trip to Brazos Valley in conjunction with 1st Ann. Mtg. Write: John A. Kay, 618 Wichita Natl. Bldg., Wichita Falls, Texas.

*Oct. 23-25 1958—AIME: Mid-America Minerals Conference, Chase-Park Plaza Hotels, St. Louis. Field trips Oct. 24 to the River King Mine of Peabody Coal Co. and to Indian Creek Mine and mill of St. Joseph Lead Co.

Oct. 27-29, 1958—GULF COAST ASSOC. OF GEOLOGICAL SOC'S., Ann. Mtg., Corpus Christi, Texas. Write: Theodore D. Cook, P.O. Box 1861, Corpus Christi, Texas.

Oct. 31, 1958—CONFERENCE ON GEOLOGY OF TEXAS, jointly sponsored by Bureau of Economic Geology and the Dept. of Geology, University of Texas, Batt's Auditorium, University of Texas, Austin, Texas.

Nov. 6-7, 1958—AAPG: PACIFIC SECT. Ann. Mtg., Ambassador Hotel, Los Angeles, Calif.

*Nov. 6-8, 1958—GSA: ANNUAL MEETING, St. Louis, Mo. Also SEcG, SVP, PS, AGT, & Geochem. Five field trips and guidebooks covering Missouri and Illinois.

Feb. 2-4, 1959—AAPG: Rocky Mountain Sect., 9th Ann. Convention, Civic Auditorium, Albuquerque, N. M.

Feb. 5-6, 1959—AGU: Pacific Southwest Region, Stanford, Calif.

Feb. 15-19, 1959—AIME: Annual Meeting, Hotels St. Francis, Sheraton-Palace, Sir Francis Drake, San Francisco, Calif.

March 16-19, 1959—AAPG-SEPM: 44th Annual Meeting, Memorial Auditorium, Dallas, Texas.

April 1-5, 1959—GSA: Cordilleran Sect., Tucson, Arizona.

April 2-3, 1959—AIME: SOC. PETR. ENG., Fifth Ann. Joint Mtg. of Rocky Mountain Petroleum Sects., Casper, Wyo.

*April 2-4, 1959—SEPM: Permian Basin Sect. Annual meeting, Roswell, N. M. Field trip to Sacramento Mountains area April 3 & 4.

April 13-14, 1959—LAKE SUPERIOR INSTITUTE ON GEOLOGY, University of Minnesota, Minneapolis, Minn.

April 13-15, 1959—ASSOCIATION OF AMERICAN STATE GEOLOGISTS, Lawrence, Kansas.

April 16-18, 1959—GSA: Southeastern Section, Chapel Hill, N. C.

May 4-7, 1959—AGU: Annual Meeting, Washington, D. C.

May 7-8, 1959—AIME: SOC. PETR. ENG., Permian Basin Sect. Oil Recovery Conf., Midland, Tex.

May 14-16, 1959—GSA, Rocky Mountain Section, Montana State University campus, Missoula, Montana.

May 30-June 6, 1959—5th WORLD PETROLEUM CONGRESS, Permanent Council, New York. Write: C. E. Davis, Gen. Sec'y, 527 Madison Ave., New York 22.

Aug. 30 - Sept. 12, 1959 — INTERNATIONAL OCEANOGRAPHIC CONGRESS, AAAS, UNESCO & ICSU special committee on oceanic research cooperating: United Nations Bldg., N.Y. Write: Dr. Mary Sears, Woods Hole Oceanographic Institution, Woods Hole, Mass.

*Aug. 15 - 25, 1960 — XXI INTERNATIONAL GEOLOGICAL CONGRESS, to be held at the Mineralogical Geological Museum of the University of Copenhagen in Denmark. Field trips before and after the meetings.

1958 SCHEDULE OF FIELD TRIPS

For additional field trips held in conjunction with meetings, see those items marked with an asterisk under meeting calendar.

Oct. 4, 1958—UTAH GEOLOGICAL SOC., Ann. Field Trip to Stansbury Range. Write: 200 Mines Bldg., Uni. Utah, Salt Lake City, Utah.

Oct. 11-12—NEW ENGLAND INTERCOLLEGIATE GEOLOGICAL CONF., New Haven and southern Connecticut. For details write: John B. Lucke, U-45 Storrs, Conn.

Oct. 16-18—NINTH ANN. FIELD CONF., to Black Mesa Basin of NE Arizona. Sponsors: New Mexico & Arizona Geol. Soc's. Guidebook. For information write: Richard D. Holt, P.O. Box 1116, Roswell, N. M.

Oct. 18—ILLINOIS STATE GEOL. SURV., trip to Pennsylvanian of Nashville area, Washington Co., Illinois.

Oct. 27-29—GULF COAST ASSOC. of Geol. Soc's., Corpus Christi, Tex. Trip as conducted by Corpus Christi May 15-17.

Nov. 7-8—WEST TEXAS GEOLOGICAL SOCIETY. Field trip to Tordilla Hills Eocene & Miocene. Write: Robert Pavlovic, 1704 Alamo National Bldg., San Antonio 5, Texas.

1959

April 11—ILLINOIS STATE GEOL. SURV., trip to Metropolis area of Massac & Pope Counties, Illinois.

May 2—ILLINOIS STATE GEOL. SURV., trip to Hardin area of Calhoun Co., Illinois.

May 16—ILLINOIS STATE GEOL. SURV., trip to Wilmington area of Will, Kankakee & Grundy Counties, Illinois.

NOMINATING COMMITTEE

AGI President J. V. Howell appointed a Nominating Committee consisting of Dr. Ian Campbell, Dr. John C. Frye, and Dr. E. A. Eckhardt, who will serve as chairman. They have reported the following slate of officers:

For President: Paul L. Lyons, Sinclair Gas & Oil Company, Tulsa, Oklahoma.

For Vice President: W. W. Rubey, U. S. Geological Survey, Washington, D. C.

For Secretary-Treasurer: Donald H. Dow, U. S. Geological Survey, Washington, D. C.

This slate will be presented to the Board of Directors at its meeting on November 8, at which time additional nominations may be made from the floor.

This Month in GEOTIMES

Professional News Magazine

Published by **THE AMERICAN GEOLOGICAL INSTITUTE**

Robert C. Stephenson, EDITOR

Kathryn Lohman, CIRCULATION MANAGER

VOL. III, No. 3 OCTOBER, 1958

GEOTIMES is published eight times a year by the American Geological Institute at Williams and Heintz Lithograph Corporation, Washington, D. C. Address all correspondence to 2101 Constitution Ave., N.W., Washington 25, D. C.

Subscriptions: GEOTIMES is distributed to members of supporting Member Societies as a part of their society membership. Non-member rates—U.S.A. and Possessions, Canada and Mexico, $2.00 per year; elsewhere, $2.50 per year. Entered at Washington, D. C., as second-class matter.

Mile Post Ten

MILE POST TEN is a point at which to pause and reflect on the ten years of progress and performance of the American Geological Institute. It is a time also to look ahead, to assess the expectations and demands of the future, so that the course may be adjusted accordingly. Recognizing this need, AGI's President, J. V. Howell, asked former President Carey Croneis to head an AGI Evaluation Committee. Dr. Croneis has asked each of the fourteen Member Societies to make a critical analysis of the Institute, each from its own perspective. The Societies will be reporting to the Croneis Committee in November.

MILE POST TEN can be a point of rededication to the concepts of *coordination, cooperation* and *service* on which the Institute was founded. It can also be a point of reorientation. The constructive criticisms and suggestions provided in the independent analyses by the Member Societies will be vital to this reorientation.

MILE POST TEN should also be another kind of check point of vital importance to the AGI. It should be a point at which each of the fourteen Member Societies takes stock of the manner in which it is discharging its responsibilities to AGI. As a shareholder in the federation, each Society has a voice in the management of the Institute through the two representatives which it appoints to the AGI's Board of Directors. Does the society consider these appointments with due seriousness? Are these directors on the AGI Board recognized by the society as their voice in the management of AGI and their channel of communication in the operation of AGI?

MILE POST TEN is a time to inventory resources. Resources can be measured in time, effort, wisdom, and finances. To be a true success, the Institute must have the pledge of all of these resources from its constituents. The blend must be proper and the reserves adequate.

MILE POST TEN can be a healthy experience for all. It can be a time to acknowledge achievements, but it is more important for the future of the American Geological Institute that it be a time at which *all facets* of any shortcomings and deficiencies be examined as they relate to both the management and the stewardship of the Institute and its constituents.

OUR COVER

MILE POST TEN commemorating the first ten years of AGI.

The AMERICAN GEOLOGICAL INSTITUTE is a non-profit professional service organization established and managed by the scientific societies in the fields of geology and geophysics in cooperation with the National Academy of Sciences-National Research Council. It is the instrument of the profession serving and advancing the welfare of the geoscientist in matters relating to education, professional responsibilities and government relations. It is an active member of the Scientific Manpower Commission. It also functions in the stimulation of public education and awareness of the earth sciences, through career literature, the scouting program and other channels of communication.

GEOTIMES is the news magazine of the geological sciences. It reports on current events in the earth sciences, public education and public relations efforts throughout the profession, as well as appropriate legislative and governmental issues. It announces scholarships, fellowships, publications and new developments. It provides a forum for discussion of timely professional problems, and affords a common bond between the many specialized groups within the earth sciences.

SHALL GEOSCIENTISTS UNITE?

This was the burning question of the period from 1942 to 1948

November 15, 1958, will mark the 10th Anniversary of the founding of the American Geological Institute as an organization dedicated to the "*advancement of geology and its application to human welfare by providing a means for the cooperation of organizations active in the fields of pure and applied geology.*" On that day ten years ago, after more than five years of study and debate by leaders of the profession, representatives of eleven national societies in the areas of geology and geophysics met in Washington to form the American Geological Institute under the sponsorship of the National Academy of Sciences-National Research Council. *A. I. Levorsen,* one of the leaders in the organization, was elected as the first president of AGI, *Wm. B. Heroy* was the first vice-president, and *Earl Ingerson* the first secretary-treasurer.

The Institute was not born by painless techniques such as are advocated by some modern researchers in obstetrics. Since geologists are of the old school, the birth of the Institute was after a long and difficult gestation period. The American Geological Institute was not conceived by a minority faction, seeking this as a means of professional recognition. The roster of men who met during the period 1943-1948 to resolve the problems relative to the founding of the Institute was a generous cross-section of "Who's Who in Geology." The American Geological Institute was conceived by leaders of the profession.

Croneis Blasts Lethargy

Many geologists complained about the sliding professional stature of geologists and the lack of public awareness of geology, but there was little organized effort to do anything about it. Dr. Carey Croneis, then of the University of Chicago, delivered his epic address, "*Geology in War and Peace,*"[1] before the Annual Meeting of the AAPG in Denver in 1942. This address provided the jolt which rocked the geological profession off dead center, and although excerpts are here cited, we cannot urge too strongly that our readers seek out and read this and other articles referred to in this account of the events leading up to the founding of the AGI.

Croneis minced no words in speaking to his fellow geologists when he said, "To be brutally frank, in the English-speaking world, geology has no very high standing as a science. It is considered a nuisance by many college administrators and, all too commonly, if taught at all, courses in the subject are conducted reluctantly by the junior member either of the chemistry or the biology department. University presidents grudgingly give their departments of geology space, usually though fortunately not universally, in the oldest building on the campus, and ordinarily in its basement or attic. Professors of geology are commonly the lowest paid on their respective campuses, and their budgets are ordinarily lower than the base of the Archeozoic."

"Geology is so poorly regarded by our scientific cousins that not more than one out of five majors either in the physical or biological sciences takes a single course in the subject. Do you realize the full import of what I am saying? I am stating the bald fact that on a national basis more than 80 per cent of the mathematicians, chemists, physicists, botanists, zoologists, and medical men never have any scholastic contact with the subject of geology. Moreover, the professional educators think so little of the value of geological training that today approximately 99 out of 100 high school students have had no formal educational contact with the planet on which they live. This is in marked contrast to the situation during the heyday of Salisbury's Physiography, when it is estimated, 25 per cent of all American high school students had at least one formal course in geology.

Partly as a result of, and importantly contributing to, the situations just described, geology has for years been given

[1] Carey Croneis, *Geology in War and Peace,* Bull. AAPG, Vol. 26, No. 7, pp. 1221-1249. 1249.

scant space in newspapers and magazines, and almost no time on the radio. The geologist who is in college or university administration is a rara avis—perhaps this is not an unmixed evil—geologists in positions of real national power are non-existent,[2] and even more disturbing, members of the profession on important national scientific or advisory groups are as scarce as mammals in the Mesozoic. Even in the petroleum world all too many corporations and independent operators maintain geological staffs as a stylistic conformity, and do so more or less with tongue in cheek. But the zenith of my personal irritation with the general situation stems from two other facets of it—namely, that geology no longer attracts the very best type of graduate students—though it would be a mistake to assume that it does not still lure some superlatively good men—and that geologists, by a combination of circumstances, have been—and probably for some time will be—circumvented in adding their full and important talents to the country's total resources for winning the war."

Public Relations Important

Dr. Croneis pointed to the effective public relations efforts of other scientific professions and by contrast drew attention to the apathy—even disdain—of geologists toward publicity and the need for greater public awareness of geology and geologists. He said, *"The geologist who attempts to satisfy that desire with an honest popularization of his subject should not immediately lose caste in his profession as is presently the case. The heavy restraining hand of geological opinion has, in a large measure, prevented us from selling our subject to the public."*

Turning to another facet of the profession's dilemma, he pointed out the disunity when he said, "I now must mention another one of our weak points—general disunity of geologists—a fault which doubtless contributes largely to our lack of strength. There are always among us those who wish to establish separate departments of meteorology, of mineralogy, of paleontology, and of geophysics. There are all too many men in our profession who by every possible evasion avoid admitting they are geologists. What in heaven or its antipodal area is wrong with being a geologist? Why not for public, and non-professional purposes at least, drop the terms, mineralogist, paleontologist, physiographer, petrographer, geomorphologist, geophysicist, geochemist, and geo-everything else? The confusion in our ranks—the lack of unity which is so harmful—in part results quite naturally from the fact that our science rests far from the base of the scientific pyramid."

Moving on in his epic address, which was presented at a time when our nation was at war, Carey Croneis discussed briefly the importance of geology in war and pointed up the lack of a coordinated profession speaking for geology in matters pertaining to the military and other governmental activities. He went on to present his views on the need for revitalization of geological education.

Croneis Envisions Institute

In a review of the pre-AGI era, perhaps the most important part of the Croneis address is that recorded under the heading Recommendations:

"I have contended that the profession of geology does not occupy as high a position in national esteem, and thus in fundamental national utility, as its potential importance warrants. I have cited a few of the data which tend to support my contention. Although it is 'easier to be critical than correct' it seems logical to suppose that all of the causes and effects outlined in this paper are interrelated. Further, it appears reasonable that if geologists themselves are largely to blame for their rather lowly estate, as I believe, then it is far from impossible for them to pull themselves up a few rungs higher on the ladder of scientific respect.

"Realizing that advice, like criticism, must be given by the tank, but will be taken by the drop, I nevertheless wish to continue with my perhaps unmitigated presumptuousness and make several suggestions for the good of the science. These recommendations are presented first in outline form and then discussed briefly in sequence.

"I. Organize an American Geological Association to which each geologist, and each person fundamentally interested in the subject, may belong regardless of field of specialization, or prime professional affiliation.

"II. Establish and consistently maintain a system of awards to attract the highest grade of young men, and women, to the profession.

[2] The case of Mr. Herbert Hoover does test, but fails to controvert, the rule, for while President, and since, I cannot find that he was ever referred to as a geologist, though he took his training in geology. How much the physicists or chemists, quite properly, would have made out of a comparable situation I am afraid to state.

GEOSCIENTISTS UNITE?

(Continued from page 6)

"III. Establish and consistently maintain a series of rewards to honor outstanding accomplishments by members of the profession.

"IV. Inaugurate and consistently maintain a unified, vigorous, and yet dignified public relations program.

"It is obvious that all of these suggestions are closely related and that, if the first were followed completely, the remaining three could be readily facilitated."

The "Association" as envisioned by Croneis is essentially the AGI of today, although some of the potentialities which he saw for the "Association" have not yet been developed by the American Geological Institute. He saw its possibilities as a guiding force improving the education of young geologists, an area of service only slightly developed by the present AGI. He realized that the "Association" would be a logical central force in coordinating his proposed systems of awards and rewards. Carey Croneis predicted that in the "Association" the geological profession could develop an effective public relations program and offered the suggestion that the many fields of specialization could unify under the banner *Geoscience*, if not geology.

Aurin Tenders Invitation

The "friendly philippic against the entire geological fraternity" as Croneis termed his Denver address, was not heard, read and then forgotten, for it stirred much discussion in the ensuing months among leaders of the profession. Subsequently, AAPG President Fritz L. Aurin issued an invitation to all national and local societies to attend the annual meeting of the AAPG at Fort Worth on April 10, 1943, "to discuss, plan and organize the American Geological Association (or similar title)."[3] All societies replied to this invitation and most sent representatives. The more than 100 geologists who participated in this meeting heard Carey Croneis elaborate on the proposals of the previous year in his review *"Geological 'Union Now'."*[4]

At this first of a series of important meetings which led eventually to the founding of the American Geological Institute, there was spirited discussion of the issues and two resolutions were adopted, one endorsing the concept of a new federation to represent all geology and another which authorized Chairman Levorsen to appoint a committee to formulate a statement of purposes of the proposed federation and to suggest forms of organization.

The committee named was as follows:

Lincoln R. Thiesmeyer, *Chairman**
Paul Weaver
A. Rodger Denison
W. B. Heroy
W. Taylor Thom, Jr.
Carey Croneis, *concultant*
Paul H. Price, *ex-offico*
A. I. Levorsen, *ex-officio*

Perhaps the most significant meeting of the entire organizational period was held in Chicago, August 20-23, 1943, when the Thiesmeyer Committee in a concentrated work session shaped the purposes of the proposed union and drafted a tentative constitution. Thom, Weaver, Croneis, and Price were unable to attend the Chicago conference, but Fritz L. Aurin, Fred H. Lahee, Ira H. Cram and Theron Wasson were available to aid greatly in the deliberations.

The report presented three alternatives for achieving the needed program: (1) to reorganize an existing society and to expand the scope of its activities to provide for its needs; (2) to organize a new society of individuals, and (3) to organize a federation of societies. The committee indicated its preference for the third (3) alternative —that of a federation.

Constitutional Meeting

The report of the Thiesmeyer Committee was submitted to eleven national societies (AAPG, AGU, AIME, GSA, MSA, PS, SSA, SEcG, SEPM, SEGp, and SVP) with the request that each society study officially the report of the committee, and especially the tentative constitution. Sixteen official representatives of nine societies and six observers responded to the call for a constitutional meeting at the GSA

(Continued on page 27)

[3] Science, Vol. 97, No. 2517, March 26, 1943, pp. 280-281.

[4] Carey Croneis, *Geological 'Union Now'*, Bull. AAPG, Vol. 27, No. 6, pp. 1001-07.

* Dr. Lincoln R. Thiesmeyer, now president, Pulp & Paper Research Institute of Canada, was one of the leading proponents in the geological federation movement. At the time he headed the committee appointed at the Fort Worth meeting he was president of the Association of Geology Teachers. When he went to Washington during World War II to serve with the Office of Scientific Research and Development, a large part of his free time was given to his never-ceasing efforts to establish the geological federation. Thiesmeyer, who holds a Ph.D. in Geology from Harvard, pursued a teaching career in pre-war years, but he did not re-enter the field of geology at the end of the war. The profession owes Dr. Thiesmeyer an enduring debt of gratitude for his vision and devoted service in the events which led to the formation of the American Geological Institute.

AGI TRANSLATION CENTER

Russian translation program started

The American Geological Institute recently received a grant of $130,000 from the National Science Foundation for the establishment of a translation program in the geological sciences. The prime objective of the program will be to make significant foreign literature, particularly Russian, available in English to research workers of this country and other English-speaking nations.

An AGI Translation Center is being established at 601 West 115th St., New York 25, N. Y., to serve as a clearing house for translations and translation inquiries in the geological sciences. The center is under the direction of Prof. Rhodes W. Fairbridge of Columbia University, who is head of the AGI Translations Committee.

The NSF grant provides not only for the establishment of the AGI Translation Center but also for funds for the translation and publication of two Russian books, Nalivkin's *Facies Studies* and Belousov's *Fundamental Problems in Tectonics*. The program will also include translation of geological abstracts from the Russian abstract journal, *Referativnyi Zhurnal*, which will be published by the AGI as a monthly journal. Perhaps the most significant part of the program made possible under the NSF grant will be the publication of a new monthly journal, *International Geology Review*. The translations will be carried out under the editorship of Dr. Fairbridge, who will be assisted in the activities of the AGI Translation Center by Mr. T. C. O'Callaghan, Associate Editor. The AGI Translations Committee will serve in an advisory capacity to the Center and in the Translation Program.

International Geology Review is being started to fill a gap in the geologic literature of the English-speaking geologist. It is recognized that there are many important new contributions in geology being published in foreign languages and in journals which are not readily available. The *International Geology Review* will be devoted to translation and publication of such contributions, mostly in condensed form, as developed by screening foreign literature. The *International Geology Review* will concentrate primarily on translations of Russian literature, but will include papers of significance from other languages.

International Geology Review has excellent prospects of becoming a fixture in geological literature. Serious effort is being made to encourage as much voluntary cooperation as possible in the screening and preparation of material for this journal. The American Geological Institute urges that persons who are interested in aiding this new journal direct their correspond-

RUSSIAN—*Continued from page 9*

ence to Dr. Fairbridge at the AGI Translation Center.

The AGI Translation Center is compiling a card index of qualified translators and translating agencies. It is also compiling lists of materials for translation, arranging for translations, and editing materials to be published. The Center is prepared to serve as a clearing house on translations information. Publication and distribution of the translated materials will be the responsibility of the AGI Central Office in Washington.

The AGI Translations Committee, as listed on these pages, is composed of carefully selected representatives from educational institutions, private industry and government. Dr. E. M. McNatt, for example, is a member of the SEGp committee on Russian translation, while Frank Whitmore is the U. S. Geological Survey representative on the Inter-departmental Subcommittee on Russian Translation of the federal government. John Binnington, Libarian at Brookhaven, is also chairman of the Translation Monthly Committee of the Special Libraries Association, centered at John Crerar Library, Chicago. Kurt Lowe represents the Geology Section of the New York Academy of Science, and John Rodgers is editor of the American Journal of Science. Earl Ingerson is translations editor of the Geochemical Society and represents AGI on the International Commission on Geological Abstracts.

Rhodes Fairbridge has an intenational background which equips him well for his role as head of the AGI Translations Committee and the AGI Translation Center. A native of Australia and son of a Rhodes Scholar, Kingsley O. Fairbridge, he received his undergraduate training at Queens University in Ontario and obtained a second degree at Oxford (England) at which time he did research work in the Carpathian Mountains. Prior to World War II he worked with the Iraq Petroleum Co. in the Middle East, but returned to his native land in 1942 to serve in the Royal Australian Air Force. He received his PhD in geology at the University of Western Australia in 1944 and taught there from 1946 until 1953 when he came to the University of Illinois as a Fulbright scholar. He returned to the United States in 1955 from Australia to become associated with the Department of Geology at Columbia University. He has traveled widely in the Pacific area and in 1957 was a delegate to the Pacific Science Congress.

At the XXth International Geological Congress in Mexico, 1956, Dr. Fairbridge was appointed to explore and foster the exchange of scientific literature between the Soviets and the Western World (GeoTimes, Oct., 1956). As an outgrowth of this responsibility he was selected by Dr. J. V. Howell, president of the American Geological Institute, to head the Translations Committee. The Committee has been extremely active since early 1958 shaping the translations program which was submitted in early June to the National Science Foundation for consideration.

The National Science Foundation, in a foreign literature program under the guidance of Mr. Ralph O'Dette, is supporting translation programs in a number of areas of science. The AGI anticipates supplemental aid from the NSF to bridge the gap between subscription income and actual expenses in continuing the journals. Income from sales of the books will be plowed into more book translations or will revert to the Foundation. None of the income from either the grant or the sales of publications will revert to the Institute.

The publications will be announced through advertisements in GeoTimes as they become available.

W-I-D-E-N YOUR PROFESSIONAL OUTLOOK

Are you planning to attend at least one of the host of excellent scientific and technical meetings scheduled for this fall? If not, you are missing important opportunities to advance your professional career. We urge you to consult our calendar on page 1 for meeting dates, places and sponsorship.

Rare is the man who doesn't receive a real boost and stimulation from exposure to new ideas, lively debate and thought-provoking challenges which characterize a good scientific or technical program. For the man who is slogging in a monotonous mental rut while wrestling with the task that occupies his day to day thinking, the stimulus of a meeting can open the door to new concepts and give him new impetus for progress. Employers should realize that this "mental recharge" is just as essential to the productivity of his professional scientist and engineer as a charged battery is to the company truck on a sub-zero morning. Companies may issue strict orders about recharging truck batteries, but neglect completely the recharging of the vital "mental batteries."

There is another benefit which comes from meeting attendance—friendship. The scientific and technical meetings afford an unmatched opportunity to make new professional friends and renew contacts with old friends. We are prone to make light of the hours spent in bull sessions at meetings, but no one can seriously deny that an individual can and usually does come away from most such sessions with some new ideas, new contacts, a fresh outlook and other intangible assets which make him a better man for his job. Here again these benefits accrue to the advantage of the employer as well as the employee.

Meetings offer a third means of widening your outlook—perhaps the most important of the three—namely, to participate. You may as an observer participate in discussions. You may give a paper, or you may help run the meeting. If you have never been drawn into the planning or running of a meeting or a society, your professional career is lacking. Once you have been drawn in there are opportunities and benefits for you which would otherwise not present themselves.

We suggest that you attend at least one meeting of your choice this fall and strongly urge that in the future you volunteer your service to aid in conducting meetings and your society's affairs.

Attend a scientific meeting of your choice this fall.
See the calendar, page 1.

AAAS MEETING

Washington
Dec. 26-30

Section E, Geology and Geography, of the AAAS will sponsor an interesting and varied program when the American Association for the Advancement of Science holds its annual meeting in Washington, D. C., December 26 to 30, 1958.

There will be a *Symposium on Experimental Geology* which will be concerned with research by physical and chemical methods. There will also be a *Photogrammetry Symposium.* These two programs will be supplemented by conducted tours of the topographic map facilities of the U. S. Geological Survey and of the laboratory facilities of the Geophysics and Geochemical and Petrology Branches.

Another facet of the program will be the Symposium on the History of Science to which the geologists will contribute sessions on the *History of Geology.* There will be symposia on *Multiple Glaciation* and on water, which will be of interest to geologists.

Frank W. Whitmore of the U. S. Geological Survey is Secretary of Section E.

AGI MEMBER SOCIETIES BOOKLET

The AGI has just issued a new 16-page booklet entitled "The Member Societies of the American Geological Institute." It describes briefly the organization, history, purpose, membership requirements, and other pertinent data concerning the fourteen Member Societies of the Institute.

The booklet fills a long-recognized need and is expected to stimulate interest in membership in these societies. Single copies of the booklet are free on request from the *American Geological Institute, 2101 Constitution Ave., N.W., Washington 25, D. C.*

1948 – TEN YEARS – 1958
of the
AMERICAN GEOLOGICAL INSTITUTE

Ten years ago, on November 15, 1948, representatives of eleven national societies met at the National Academy of Sciences to launch the good ship American Geological Institute. Building and launching such ships was not a new experience for the geological profession, for had they not helped lay the keel for the American Association for the Advancement of Science and the Cosmos Club in addition to building and christening some societies of their own? However, this launching had special significance, for there had been much debate over the plans for this ship. This debate, as reported elsewhere in this issue of GeoTimes stretched out over a period of six years (1942-1948). There were those who wanted a fine new ship, specifically fitted for the purpose. Others preferred to recondition an existing ship, even though it might be unsatisfactory for certain classes of passengers. Still another group wished to hire the job out to a ship flying a different flag. There was a segment of the profession which thought that they could get by on a time charter or rental basis and then there were quite a few who said, "Who needs a ship for this job anyway?"

Despite the differences of opinion, the ship got built and was launched, due in no small measure to the appearance on the scene of a master shipwright named Bronk and a couple of able helpers. It slid down the ways on that eventful day in November 1948. In shipbuilding tradition, once it was launched, the ship had to be fitted out for voyage and the owners had to pick the crew.

Delo First Skipper

It was June 1, 1949, when the first skipper, Dr. David M. Delo, was piped aboard the good ship AGI, a banner bearing three words—coordination, cooperation and service—was struck, the anchor was hauled in and under half-speed the ship eased away from the dock. The problems of getting the ship on course and shaken down were numerous, difficult and often discouraging. The first skipper of AGI had this to say about his tour of duty which ran to 1952:

"I reported for duty as the Executive Director of the new AGI on June 1, 1949. Our hopes were high even though we realized the magnitude of the task which faced us. Establishment of the office in the National Research Council had followed 6 years of countless meetings and hard work by a dedicated few, many of whom are still highly active in the affairs of the institution.

"Our hopes were high because we saw the example of the American Institute of Physics; we sensed the vitality of our profession; we saw the need for an organization through which cooperation could be fostered throughout our profession, through which coordination of action could be gained and service could be supplied. We also had the backing of the National Research Council, of individual leaders high in the profession and of the major societies.

"The first job was to reach the grass roots of our profession with an explanation as to the function and purpose of this new organization. With the help of some outstanding individuals in the petroleum industry, I early appeared before a considerable number of local geological societies to explain the purpose of AGI, how it would operate, what it would try to do, and also to disprove the widely held concept that the NRC and therefore the AGI was a creature of government. The staff at that time consisted of Mrs. Helen Norcross as secretary and myself. I was supposed to spend half time on affairs of the Division of Geology and Geography, NRC, but in reality AGI with its challenge and its problems captured most of my attention.

"The first concrete step was to issue a *News Letter*. It carried some news of the profession, an editorial page for

Left: A. I. LEVORSEN, Tulsa Consulting Geologist, was the first president of the AGI 1948-1949.

Center: W. B. HEROY, Geotech Corp., Dallas, Texas, succeeded Levorsen as president of AGI and served two terms 1949-1951.

Right: DAVID M. DELO, now president of the University of Tampa, Florida, was AGI's first executive director and served three years 1948-1952.

officers of the member societies, and news of AGI plans and operations. It was a far cry from the present well designed and written GeoTimes, but it was a start.

"The next concrete step was to initiate services which were not being performed by individual societies or which could better be performed by a central organization. We began to issue reports on these matters, many of which are still being continued on an annual or semi-annual basis. Committees on public relations, on manpower and other fields of interest to the profession were established; local initiative encouraged; a career booklet for use with high school students was written and issued. Steps were taken to secure support from industry and from individuals. The membership was broadened and an attempt was made to secure at least some financial support from each member society, although the burden was being carried by GSA and AAPG. Every attempt was made to make each project self-supporting and, in general, this was accomplished. Plans were also laid for larger projects which have subsequently come to fruition.

FOUNDATION LAID

"These initial three years laid a foundation for service to the member societies, cooperation in matters of common concern, and a means of coordinating common activities.

"I believe the geological profession as a whole should feel a great sense of gratitude and debt to the handful of far-sighted individuals who laid the foundation for the Institute. As for myself, I have always been grateful for the opportunity which was accorded me to participate in an active way in these initial years. It has always been my hope that they created a sound and solid foundation for a successful Institute. From all I can observe, these hopes have been realized."

The profession will probably never truly appreciate the dedicated service of Dave Delo to the American Geological Institute. Leaders of the profession had seen the need for AGI, and it was finally created. However, those who had taken a truly active part in the formative period constituted considerably less than one per cent of all geoscientists. His was the task of selling the Institute to the other 99 per cent. The profession to which he was trying to sell the hopes and dreams of those who founded the AGI was a skeptical profession that traditionally challenged new ideas and changes—a profession that for its own protection had developed a calloused attitude toward the schemes and claims of mineral promoters and the like.

Delo realized the need for a means of communication, so he started the *News Letter* and he also travelled to geologic gatherings to acquaint the "grass roots" with the new AGI, its organization, objectives and program. Within the year the Institute had produced five reports which included *"Summer Geology Field Courses, 1950"; "Supply and Demand for Geological Personnel"; "Geologic Guide Books and Road Logs in the U. S."; "Non-Industrial Geological Research in the U. S., Canada and Mexico";* and the first edition of *"Earth for the Layman."* The AAPG Directors[1] report that under Delo during that first year, "The program of the Institute has been greatly advanced through his energy and ability. . ." They went on to say that "The Institute's most pressing problem is to establish itself financially on a basis of self-support." These directors reported on the activities of the standing

[1] Paul Weaver and Wm. B. Heroy, Bull. AAPG, vol. 34, no. 6, pp. 1338-1340, 1950.

AGI HISTORY—*Continued from page 13*

committees which had gotten into operation. Ones attention might well be drawn to what Walter H. Bucher, then president of the AGU, wrote in an early issue of the *News Letter:*

> "Two wars have taught us that we need both the National Research Council and the Institute. To be effective, both require the active interest and whole hearted participation of all concerned. Without that, they will perhaps not die for some time to come, since organizations do not die easily, but they will vegetate in empty futility. Should this come to pass, let us remember to designate those who take pride in pointing to that futility as the men most directly responsible for it."

In a later issue W. W. Rubey, president of the GSA, wrote that "The AGI embodies, so that all may see, our realization that all of us, geophysicists, mineralogists, geologists and paleontologists, whether economic or academic, are alike concerned with problems of the earth, its constitution and its history."

A report of the income showed that Member Societies contributed $8,000 against expenses of nearly $18,000 and that 90 Founders, men of stature in the profession, provided $11,000 in contributions.

Manpower Problems

The Korean conflict soon brought a major reorientation of the program of the Institute, for inquiries concerning military service, deferments, scientific manpower and relative problems flowed in from all quarters of the profession—from individuals, companies and institutions. Executive Director Delo found that these demands consumed most of his ½ time efforts on behalf of AGI *(remember, he was only ½ an AGI Executive Director and ½ a National Research Council Executive Secretary)*. The September 1950 *News Letter* reported the organization of the National Register of Scientific and Technical personnel under the National Science Foundation with AGI as one of the survey agencies.

The late Max W. Ball, one of the great names in petroleum geology in our time, was author of an editorial in the January 1951 *News Letter* entitled *"Inform the Public for the Public Good."* He raised the question, "Is geology doing all that it could for the welfare of the public?" He concluded that it wasn't by a long shot and went on to say:

"The task of correcting this condition is ours. We cannot expect the public to inform itself; it will accept information avidly if we provide it. We, and we alone, can create a better-informed public, not today or next year but five years hence and ten and twenty and fifty.

"This to my mind is the great long-range job of the Institute, a job that will do more for the profession and for the public good than any other the Institute could undertake. In it every geologist should do his full share. We face more than a task; we face a public duty.

"If we believe in geology, if we believe that fuller use of geology would make a better, a richer, and a safer country, we should neither neglect the duty nor shirk it."

State Geologists Join

Dr. Wm. B. Heroy, who had taken over from AGI's first president, A. I. Levorsen, at the El Paso Meeting of the AGI's Board, was elected to a second term as president in the meeting in Washington in November 1950. It was at this meeting that the Association of American State Geologists was elected to membership in the AGI.

In 1951 the AGI took over from AAPG the responsibility for publishing the Directory of Geology Departments and began planning of the glossary project, geological abstracts and various non-technical road logs and guide books. At the annual meeting in November of that year many public relations opportunities were discussed and the need for a full-time public relations man on the staff of the Institute was judged as essential. It was approved that Executive Director Delo investigate the possibilities of starting a more formal professional magazine to replace the *News Letter.*

Carey Croneis, the man who sparked the profession to create the Institute took over from Heroy in 1951 and served two terms as president of the American Geological Institute at a time when its fortunes were at a very low ebb. The activities of the organization had been curtailed because of lack of funds, and persons, and, indeed, societies moderately or actively opposed to the Institute seemed likely to terminate its existence. For this reason it was necessary for the president to meet with the governing boards of the Geological Society of America and the American Association of Petroleum Geologists to persuade those organizations to continue their subventions for the Institute. These

"holding operations" were successful, but they left little time or energy for more constructive work. This was all the more the case because the resignation of Dr. David Delo as Executive Director of the AGI placed some of his responsibilities and activities on the President's shoulders in addition to the problem of finding a new Director.

AGI Kept Alive

It was possible, however, to bring the glossary project into being. Because of the vision and organizational efforts of J. V. Howell, whose enthusiasm never waned, President Croneis was able to persuade the National Science Foundation and the Geological Society of America to pledge the funds necessary for inaugurating the project which has turned out so successfully. It was also possible during Dr. Croneis' term as President to assist in the founding of the Scientific Manpower Commission. Dr. Croneis and Dr. Howard A. Meyerhoff, representing the American Geological Institute, took a most active part in the organization of this new Commission, which has continued to grow with ever increasing stature and significance.

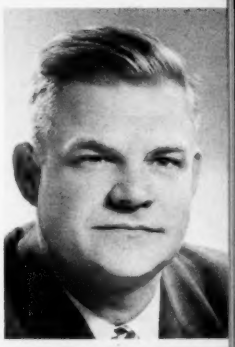
In short, during a period of considerable discouragement a small group of individuals who were influential in the founding of the American Geological Institute were able to keep the organization alive and sow some seeds which have subsequently come to gratifying fruition.

In addition to these troubles, in the spring of 1952 there was concern in certain quarters that the institute was actively soliciting the financial aid of companies as Industrial Associates to augment its meager operating income. Furthermore, there were still those who believed AGI was tied to the government through the NAS-NRC. This prompted President Croneis to write in the June 1952, AAPG Bulletin (p. 1293) "There is no truth whatever in the widespread misconception that because the AGI is affiliated with the National Academy of Sciences–National Research Council it is also affiliated in some way with the Federal Government. Neither the Academy–Council nor the Institute is connected with the Government."

Delo Resigns

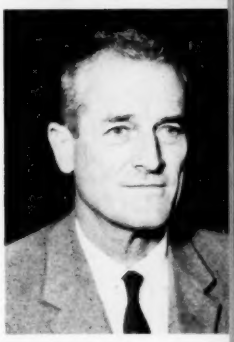
This terse note was issued by the AGI office: THERE WILL BE NO AGI NEWS LETTER FOR AUGUST 1952, OWING TO THE RECENT RESIGNATION OF THE EXECUTIVE DIRECTOR. Dave Delo returned to the academic world, accepting the presidency of Wagner College on Staten Island. The July issue carried a review by Dave Delo of his three years of dedicated effort. The Institute was without an Executive Director from July 1952 until January 1, 1953. During this period the Institute office affairs were conducted by Mrs. Beryl Spencer, who had recently joined the staff as a secretary. The annual reports of committees in November 1952 for the most part made rather discouraging reading, for the committees lacked the "spark plugging" of Dave Delo. Perhaps the Treasurer's report offered the only bright spot (?) when it reported "Actually on September 30 we had some $1,600 more than we had a year earlier, but this represents money saved by not having an Executive Director . . ."

(Continued on page 16)



Top: CAREY CRONEIS, Provost and Harry Carothers Weiss Professor of Geology at the Rice Institute, was the third president of AGI and served two terms 1951-1953.

Middle: ROBERT W. WEBB, Head of Geology Department at Santa Barbara College, was the second executive director of the Institute for a period of six months in 1953 while on sabbatical leave.



Bottom: CHARLES B. HUNT, U. S. Geological Survey, Denver, became the third executive director in mid-1953 and served a two year tour of duty.

Above right: C. R. LONGWELL, former Yale University educator, now with the U.S.G.S. in Menlo Park, followed Croneis as president of the Institute 1953-1954.

Above left: E. A. ECKHARDT, prominent geophysicist who has been actively associated with Institute affairs since its founding, served as its fifth president 1954-1955.

Lower left: MORRIS M. LEIGHTON, Chief Emeritus, Illinois State Geological Survey, led the Institute through an important period as president 1955-1956.

AGI HISTORY—*Continued from page 15*

In an effort to snap the profession from its lethargy in support of AGI, Henry Aldrich, secretary of GSA, wrote in the October 1955 *News Letter* as follows: "Yes, we have an AGI, but he's a little fellow. We never even handed him a lollypop on his third birthday last June. We mustn't expect him to run before he outgrows his rompers. He needs our attention, our pat on his back, our nourishment. He shouldn't get the notion he is a foundling left on the public doorstep. He's our baby. He bears our name. We need to convince him that we are assuring his future, that it is respectable, and that he will be a sturdy thoroughbred, carrying his own load with dignity and with financial security and independence. How better can we do that than by proposing, right now, that our dues to our societies shall be large enough to contain our "head" tax of a sum not to exceed a maximum of—say $2.00—for the support of the Institute? The overall unduplicated membership of the twelve member societies of the Institute is not far from 15,000, indicating a potential continuing financial support for the Institute of around $30,000. The Institute will do the job you want done and you will know what-all is being done when you tell your "representatives" to your societies what to do.

"With assurance of a continuing annual flow of contributions from you, the American Geological Institute can with self respect seek from industry the additional support with which to go forward in cementing the bond between geologists. Larger projects would then be possible, with larger benefits—for geologists, for the general public, and through these, for industry.

"The AGI is your baby. Are you contributing to his *non*-support?"

WEBB SECOND DIRECTOR

Dr. Robert W. Webb, on sabbatical leave from Santa Barbara College, came aboard the good ship AGI on January 1, 1953, and set about putting it in order. He patched some obvious leaks, applied a new coat of paint and, after some time in the chartroom, set the vessel on a new course. He found her a battered ship from three years of heavy going, but he also found her a sea worthy craft which had proved she could take it.

As the second Executive Director, Webb streamlined the interrelated offices of the AGI and the NRC Division of Geology and Geography. It was Webb who convinced the NAS-NRC and the Board of Directors of AGI that neither the Division nor the Institute could flourish under the split duty arrangement of the Executive, who served two masters. Under Webb the programs of the Institute were reviewed and some reorganizations were instituted. The first issue of *Geological Abstracts* was produced by the AGI office. As previously mentioned, during the spring of 1953 the Scientific Manpower Commission was organized. AGI became a member of the Commission and was represented by two commissioners, B. F. Hake and Howard Meyerhoff, who was appointed as its Executive Director.

Bob Webb, although he filled only a 6-month span in the Institute's history, arrived at a critical time and stabilized the badly rocking boat. At the end of June, 1953, he turned over the wheel to AGI's first full-time skipper, Mr. Charles B. Hunt, geologist on leave from the U. S. Geological Survey. Dr. Webb returned to his post as Professor of Geology at Santa Barbara College.

BRIGHTER DAYS AHEAD

At the November 1953 meeting the present constitution and by-laws were ap-

Upper left: J. L. GILLSON, du Pont Company geologist who is president-elect of the AIME, followed Leighton as AGI president 1956-1957.

Upper right: AGI president, J. V. HOWELL, Tulsa Petroleum Geologist, is recognized for his service to the profession.

Right: ROBERT C. STEPHENSON has served as Executive Director of AGI for three years.

proved by the Board of Directors and submitted to the Member Societies for ratification. Continuing the review and reorganization of AGI begun by Webb, the Institute, with Charlie Hunt as the staff executive, again altered its course. Carey Croneis handed over the gavel to incoming AGI President, Chester Longwell, in November 1953 at the annual meeting of the Institute held at the GSA convention in Toronto. There was little question but that Croneis in his administration of AGI had weathered some very rough storms, and there were prospects of brighter days ahead.

Hunt felt that AGI should delegate all tasks which required staff effort to those Member Societies which were equipped to do these jobs in order that the time of the Executive Director could be devoted to the support of the activities of three standing committees on education and public relations, government relations, and professional relations. One tangible evidence of the policy was the transfer of *Geological Abstracts* which had been started by Webb to the Geological Society of America to publish on behalf of the Member Societies of the AGI. The AAPG was asked to assume the Register Project, but its staff was too overloaded to accept this responsibility. The work of the standing committees was stimulated by the fact that Executive Director Hunt was able to devote more time to their activities.

Past-President Longwell in writing of this period said: "The newly assigned place in the Scientific Manpower Commission assured the whole field of geology a voice in national planning that we had sadly lacked during the critical years of the World War. The *News Letter*, primitive though it was in format, was doing yeoman service in spreading essential information and in strengthening bonds among the many groups in geology and geophysics. Projects started under Executive Director David Delo were growing into a creditable list of accomplishments. Robert Webb had completed his short but busy term as temporary Director following Delo's resignation, and Charles Hunt had succeeded to the office. Hunt started by making a careful analysis of projects under way or in the planning stage, with the thought of turning over to appropriate Member Societies the actual execution of tasks for which the staff and equipment of the Institute are less adequate. This policy has made the AGI more effective in rendering essential service to the profession as a whole."

At the spring 1954 meeting of the AGI Board, the Association of Geology Teachers was voted to full membership privileges in the Institute. Four new local societies were voted in as affiliates of the AGI.

Although the Institute was gaining favorable recognition, doubts remained that its cost was justified. In the spring of 1954 the Executive Committee of AAPG questioned seriously whether financial support by that society should be continued. After thorough consideration the doubt was resolved in favor of the Institute, and the AAPG has remained a major contributor to the AGI budget.

(Continued on page 30)

AGI MANAGEMENT ROSTER · 1948-1958

President

A. I. Levorsen	1948-49
W. B. Heroy	1949-51
Carey Croneis	1951-53
C. R. Longwell	1953-54
E. A. Eckhardt	1954-55
M. M. Leighton	1955-56
J. L. Gillson	1956-57
J. V. Howell	1957-58

Vice-President

W. B. Heroy	1948-49
Earl Ingerson	1949-50
W. W. Rubey	1950-51
J. L. Gillson	1951-52
W. C. Krumbein	1952-53
E. A. Eckhardt	1953-54
M. M. Leighton	1954-55
J. L. Gillson	1955-56
J. V. Howell	1956-57
P. L. Lyons	1957-58

Secretary-Treasurer

Earl Ingerson	1948-49
Ernst Cloos	1949-50
J. P. Marble	1950-51
H. S. Ladd	1951-53
P. E. Cloud, Jr.	1953-54
H. R. Joesting	1954-56
D. H. Dow	1956-58

Chairman, Earth Science Div. NAS-NRC

Arthur Bevan	1946-49
Ernst Cloos	1949-53
Francis Birch	1953-54
Richard J. Russell	1954-56
Harry H. Hess	1956-58
John N. Adkins	1958-60

Executive Director

David M. Delo	1949-53
Robert W. Webb	1953
Charles B. Hunt	1953-55
Robert C. Stephenson	1955-

Directors

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

W. B. Heroy	John Bartram	John M. Hills
Paul Weaver	Robert Rettger	Elliott H. Powers*
Theron Wasson	Edward Koester	Noel H. Stearn*
	John R. Sandidge	

AMERICAN GEOPHYSICAL UNION

Ernst Cloos	George P. Woollard	W. H. Bucher*
W. T. Thom, Jr.	E. A. Eckhardt	J. R. Balsley*
	H. R. Joesting	

AMERICAN INSTITUTE OF MINING, METALLURGICAL AND PETROLEUM ENGINEERS

A. R. Denison	George Fowler	Charles F. Park*
J. L. Gillson	Howard A. Meyerhoff	Arthur Montgomery*

ASSOCIATION OF AMERICAN STATE GEOLOGISTS (1951)†

Wilson Laird	Herman Gunter	Meredith E. Johnson
E. P. Rothrock	M. M. Leighton	Paul H. Price*
E. L. Clark	J. H. Melvin	

ASSOCIATION OF GEOLOGY TEACHERS† (1954)

David Delo	Kurt E. Lowe	J. R. Berg*
	Chalmer J. Roy*	

GEOCHEMICAL SOCIETY (1956)†

E. F. Osborn	Ian Campbell*	J. F. Schairer*

GEOLOGICAL SOCIETY OF AMERICA

A. I. Levorsen	C. R. Longwell	W. H. Bucher
P. B. King	T. S. Lovering	G. S. Hume*
F. M. Fryxell	W. P. Woodring	J. C. Frye*
W. W. Rubey	Ernst Cloos	

MINERALOGICAL SOCIETY OF AMERICA

Earl Ingerson	Michael Fleischer	L. R. Page*
Paul F. Kerr	William Pecora	Clifford Frondel*
J. P. Marble	Arthur Montgomery	

**Incumbent Directors*
†Date admitted

PALEONTOLOGICAL SOCIETY

R. C. Moore	H. S. Ladd	C. W. Merriam
G. A. Cooper	C. L. Cooper	R. J. Ross*
N. D. Newell	E. N. K. Waering	Mackenzie Gordon*
J. R. Sandidge	W. Storrs Cole	

SEISMOLOGICAL SOCIETY OF AMERICA

G. D. Louderback	Mary Rabbitt	Leonard M. Murphy
J. T. Wilson	Dean S. Carder	H. E. Tatel
Frank Newmann	Karl Dyk	Ross Heinrich*
Maurice Ewing	J. B. Macelwane, S.J.	Dean S. Carder*

SOCIETY OF ECONOMIC GEOLOGISTS

Thomas B. Nolan	H. G. Ferguson	Francis Cameron
T. M. Broderick	D. M. Davidson	Gilbert H. Cady*
M. M. Leighton	Hugh E. McKinstry	G. M. Schwartz*
Ira B. Joralemon	J. T. Singewald	

SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

John B. Reeside, Jr.	W. C. Krumbein	F. J. Pettijohn
F. W. Rolshausen	T. H. Philpott	R. R. Schrock*
R. Dana Russell	C. C. Church	R. V. Hollingsworth*
H. B. Stenzel	H. N. Fisk	

SOCIETY OF EXPLORATION GEOPHYSICISTS

E. A. Eckhardt	Andrew Gilmour	Paul L. Lyons
L. L. Nettleton	George E. Wagoner	R. C. Dunlap, Jr.*
H. C. Cortes	Sigmund Hammer	Roy F. Bennett*
	Roy L. Lay	

SOCIETY OF VERTEBRATE PALEONTOLOGY

E. H. Colbert	H. E. Wood	C. L. Gazin
E. C. Olson	Glen L. Evans	Glenn E. Jepsen*
John A. Wilson	Claude W. Hibbard	S. J. Olsen*
	Donald E. Savage	

Incumbent Directors
†*Date admitted*

GEOLOGY in the Public Eye

by Robert L. Bates

Geology, in one form or another, is actually getting into the public eyeball! Items: In the Satevepost for Dec. 7, 1957, Sylvia Shepherd told about the life led by a field geologist's wife. Seems it's rough . . . In the Saturday Review, June 7, 1958, there were excerpts from the new book *Earth's Shifting Crust* (Pantheon Press, $6.50), by C. H. Hapgood (who he?). It says here that the next North Pole may be in the vicinity of Lake Baikal, Siberia. The Russians can have it . . . An article, "Big Boom in Dinosaurs," appeared in This Week magazine on July 27. Over 10 million toy dinosaurs were sold last year, including a do-it-yourself *Tyrannosaurus rex* skeleton assembly kit that has 48 pieces . . . July also brought a movie epic, "The Badlanders," in which Alan Ladd plays the part of a geologist. It seems there were these bad guys, see, who try to keep our hero from his pet gold mine . . . According to a review of *Clarence King*, a new biography by Thurman Wilkins (Macmillan, $7.50), King had a somewhat unorthodox preference in women—he was a melanophile. Tsk, tsk . . . An article in Harper's for September explains the hypothesis of Maurice Ewing and William Donn, namely that we're in an interglacial period and the ice is a-comin' again. Cheer up, though. Before it gets worse, it'll get better. Washington will be flooded out, and the U. S. Senate and GeoTimes will have to move inland.

The combined circulation of the periodicals mentioned above is quite respectable.

The Virginia Polytechnic Institute has issued the second edition of Dick Dietrich's *Virginia Minerals and Rocks* . . . *Rocks and Minerals of Tennessee*, by R. J. Floyd of the Division of Geology, is available . . . New Mexico Bureau of Mines presents No. 3 in the series, "Scenic Trips to the Geologic Past." This booklet, by J. E. Allen and F. E. Kottlowski, covers the Roswell-Ruidoso country . . . Bulletin G 30 of the Pennsylvania Survey, by J. T. Miller, describes the geology of a Boy Scout camp area west of Harrisburg. Stratigraphic and structural matters are explained in excellent style for the beginner, and this is the only report known to your reviewer that contains a geologic section of a four-layer cake. Looks delicious, too.

Questions about AGI?

Here are some of the more commonly asked questions about AGI

What is the purpose of AGI?

From the Constitution we quote: "The purposes of the Institute are: to advance the interests of the geological professions; to promote cooperation of societies and other organizations active in the fields of the earth sciences; to provide assistance to the geological profession in matters dependent upon united action; and to foster the application of the earth sciences to human welfare."

Who belongs to the AGI?

The Institute is a federation of fourteen scientific and technical societies of national scope. Members of these societies are entitled to privileges and services afforded by the Institute. Local societies of professional geoscientists may affiliate with the AGI. As presently constituted, the Insitute has no provisions for individual membership.

Who runs AGI?

As a federation of fourteen scientific and technical societies, the American Geological Institute is operated under the guidance of the Board of Directors, which is constituted of two directors from each member society, two representatives of the National Research Council, and up to three directors at large. The Executive Committee, drawn from the Board and consisting of the president, vice-president, secretary-treasurer, past president, chairman of the Finance Committee and the chairman of the Earth Science Division, NAS-NRC, who acts for the Board in the management of the Institute. The Board of Directors meets at an annual meeting in November concurrent with the Geological Society of America and in the spring at the meeting of the American Association of Petroleum Geologists.

AGI operates under the National Academy of Sciences. The Academy is government, isn't it?

The Academy is a private institution. True, it was chartered by Congress during Lincoln's administration, but it is non-government. Through the Academy leading scientists of the United States are frequently brought together to advise the government on scientific matters. The Academy is not supported by Congressional appropriation and neither is AGI.

Who finances AGI?

The Institute has very little income which is definitely assured from year to year. There are no membership dues for either member societies or individuals. Member societies contribute voluntarily to support of the basic Institute office and annual contributions of individual societies range up from $0 to $10,000. Several member societies have established a practice of contributing ten per cent of their annual income from dues to support of the AGI. Each society may adjust its level of support of the Institute annually at its option. To implement the funds provided by member societies and to obtain greater stability, the Institute has developed substantial added support from the Committee of One Hundred for AGI and the Industrial Associates.

These funds place AGI in a position in which it can operate. As added projects and programs are undertaken, additional funds can be secured through grants, contracts and other channels to provide for the necessary staff and operating expenses.

Why must GeoTimes have an annual drive for money?

You can't print and mail a magazine using discarded mineral specimens for wampum. The member societies provide basic financing for the existence of an AGI office, but have specifically stated that these funds are not to be used for GeoTimes. Financing of GeoTimes comes from a combination of advertising and subscription income and individual contributions received annually.

What does AGI do other than publish GeoTimes?

A quick answer to this question may be found by reading the last 12 issues of GeoTimes and by listing on paper the things reported in which the Institute is involved directly or indirectly.

Why doesn't GeoTimes provide a more meaty, scientific coverage?

The member societies of AGI are dedicated to advancement of science and technology in their areas of interest. The AGI is concerned with the profession, its welfare, and its relations to other scientific disciplines and to society. GeoTimes reflects this concept.

YOUR QUESTIONS

We invite GeoTimes readers to submit serious questions concerning AGI and GeoTimes. We will try to answer all questions to the best of our ability. Particularly important questions will be answered for the benefit of all on the pages of GeoTimes.

Please state your question as briefly as possible. Give your name and address and list the AGI member societies to which you belong.

Does AGI ever take to the road to talk about its program?

GeoTimes affords AGI its principal means of telling the profession about its program. AGI has no open meetings at national meetings and has no funds for travel to local areas. We would welcome the opportunity to visit the grass roots and to exchange ideas on developing a better geological profession.

Why doesn't AGI conduct an aggressive public relations program?

Public relations cost money—real money. One scientific discipline spends over $150,000 on its public information program. Another spends $5,000 on its annual meeting. *AGI has no funds which it can budget for public relations.* GeoTimes is believed to be doing an effective job of stimulating local action. The AGI Mission 66 program is one example of a long range public education (or public relations, if you like) effort.

Why doesn't AGI get on with the licensing problem?

AGI recognizes registration to be a serious problem in some states. The Institute has tried unsuccessfully for over two years to get a volunteer committee to tackle this problem and we have failed, due in substantial measure to lack of AGI staff support. We hope we can overcome these problems and get this study underway.

Why have some AGI Committees been so ineffectual?

The reasons are several. The AGI can provide too little staff support to aid in organizing and assisting committee activities. Without travel funds for committees, it is next to impossible to obtain continuity of participation in meetings. The AGI is only now beginning to gain the prestige and stature which brings recognition to those who serve in its programs. However, AGI can point with pride to the effective efforts of a number of its committees.

MANPOWER *in a column —*

By HOWARD A. MEYERHOFF
Scientific Manpower Commission
1507 M Street, N.W., Washington 5, D. C.

In days of old (Herbert Hoover and ante) March 4 had the distinction of being Inauguration Day in the odd years immediately following Presidential elections. Under Roosevelt II it lost all significance, but in 1958 it again became a red-letter day—though only for earth scientists. On that date geology became a profession—that is, in New York State.

It seems that, under New York's tax laws, a "professional" who derives more than 80 percent of his gross income from personal services and whose activities are such that capital is not a material income-producing factor, is not required to file an "unincorporated business tax return." To the unsuspecting geologist, this described him to a "T" until, in 1948, the New York State Tax Commission ruled differently on an individual case. Upon appeal, the ruling was upheld: It was conceded that more than 80 percent of the income of geologists was derived from personal services and that capital was not a material income-producing factor; but it was not established that geology is a profession—geologists were not on the Tax Commission's list of recognized professions.

Thanks to the persistence and stamina of the consultant and his associates who were victims of this ruling, the New York State Tax Commission consented to a formal hearing for the purpose of receiving testimony and evidence on questions of law and fact. The unanimous decision, rendered on March 4, 1958, reads in part:

"That the occupational activities of the taxpayer as a consulting geologist . . . constitutes an occupation or vocation in which a professed knowledge of the science of geology was used by its practical application to the affairs of others and in serving their interests or welfare in the practice of an art founded on such knowledge . . . That the activities of the taxpayer as a geologist . . . constituted the practice of a profession within the meaning of Section 386 of the tax law."

The decision may have greater significance than meets the eye. It is a precedent that may be effectively used to open other doors to recognition. Earth scientists owe a debt of gratitude to the defendant for carrying on this legal fight to a correct conclusion.

MORE ABOUT AGI HISTORY

A leader of the profession, E. A. Eckhardt[1] reviews significant aspects of the AGI, its structure and history

The tenth anniversary of A.G.I. provides a suitable occasion for a review of its history and of its prospects. Although geologists represent one of the oldest professions of American science and although in the 19th century they occupied a position of outstanding leadership in the sciences, they were among the last of the scientific professions to form an organization which could deal effectively with those problems which are of common concern to all geologists. In a memorable address at the Denver meeting of A.A.P.G. in the spring of 1942, entitled "Geology in War and Peace", Carey Croneis examined the general standing of geology among its sister sciences and contrasted its current usefulness with its potential utility in the total economy of the nation, either at war or at peace. Croneis compared the current status of earth scientists in the war effort with that of other scientists and discussed means by which the situation could be improved "not only for the good of the individual geologist, but for the welfare of the country as a whole."

High among Croneis' motives for elevating the standing of the profession was that this would attract more of the better minds into it. Among the possible means which he identified was an American Geological Association which would unite and represent all geologists and which would be concerned with the position of geology in the U.S. vis-a-vis the other sciences, the government and the general public.

The reception accorded the Croneis address proved that it was both pertinent and timely. There resulted a series of meetings of representatives of the various geological and geophysical societies and associations, the first of which was held at Fort Worth in April 1943. But because of the differing backgrounds, financial abilities, customs, sizes and other divisive factors it was not until five years later that the desired association came into being. Its constitution having been ratified by its member societies the American Geological Institute held its first meeting in Washington, D. C., on Nov. 15 and 16, 1948. The constitution provided that the activities of the Institute would be carried on in conjunction with those of the Division of Geology and Geography (now the Earth Science Division) of the National Research Council which itself is an agency of the National Academy of Sciences. In this manner A.G.I. operates under the umbrella of the Congressional charter to the Academy. Contrary to the impression occasionally encountered, the Academy is not an agency of the Federal Government.

How AGI Operates

The business of the A.G.I. is conducted by its Board of Directors to which each of the member societies designates two representatives. The Board has two meetings annually. It elects the officers of the Institute at the annual meeting in the fall. It establishes the broad policies and approves the budget which govern the operations of the organization. In the interim between meetings of the Board its responsibilities are discharged by an Executive Committee which has six members. This committee holds at least four meetings a year. The day to day operations of the Institute are the responsibility of the Executive Director who is a full time employee.

Various phases of Institute activity are dealt with by appropriate standing or "ad hoc" committees. Neither the chairmen

[1] By E. A. Eckhardt, president of AGI 1954-1955. Dr. Eckhardt is a retired vice president of the Gulf Research and Development Co., and on July 1, 1958, he returned to private life after one year as an Assistant Director of the National Science Foundation for the Division of Mathematics, Physical and Engineering Sciences.

nor the members of these committees need be members of the A.G.I. Board of Directors.

The A.G.I., along with its counterparts in the other sciences is represented on the Scientific Manpower Commission. As its name implies, this commission deals with scientific manpower problems generally, but more especially with those related to the draft. Howard Meyerhoff, a geologist, is its executive director. The commission elects its own members, two from each of the disciplines represented. The two representatives for the earth sciences are nominated by the A.G.I. which also supports the commission financially.

The roster of personnel currently engaged in A.G.I. activities is: Officers, Executive Director, Executive Committee, Members of the A.G.I. Board, Committees, Liaison Representatives.

Until August 1956 A.G.I. shared office space with the Earth Sciences Division of N.R.C. in the National Academy Building. Since then the Institute has benefited by occupying offices for its exclusive use in the attractive new building of the American Association for the Advancement of Science at 15th and Massachusetts Ave., N.W. Earth scientists visiting Washington are invited to drop in, meet the staff, and learn for themselves what is being done by A.G.I. in their behalf.

By long odds Washington is the most logical locale for Institute headquarters. The nation's capital has become truly the cross roads of American science. Here are to be found the headquarters of the National Academy, the U.S. Geological Survey, the National Science Foundation, the American Geophysical Union, the Scientific Manpower Commission and the Institutes of a number of our sister sciences. Here Federal policies, plans and laws are developed which in many ways affect the lives of geologists and the progress of geology. The presence of A.G.I. in this arena insures the participation by the profession in these activities.

A timely example of such participation is referred to on the editorial page of the August 22nd 1958 issue of the journal Science. Last year two scientists of the U.S. Geological Survey were invited to participate in the Distinguished Lecture Tour of the A.A.P.G. Under existing law these scientists were barred from receiving reimbursement for travel expense from private sources. One scientist solved the problem by devoting his annual leave to the tour. The other was forced to decline. The Government Employees Training Act signed into law in recent weeks corrects this situation. The Science editorial states that achievement of this correction was "in good part (due) to efforts by the American Geological Institute."

A review of A.G.I. history necessarily involves recognition of the men who have served it as officers or in the capacity of executive director. Largely through the efforts of these men A.G.I. has survived, although there were times when survival appeared doubtful, and attained the position it occupies today. Much credit is also due to the men who have served as directors and as members of the Institute committees. To list them all would require much more space than is available.

Communication

It has been noted with satisfaction by the officers and staff that practically everyone who has participated directly in the work of A.G.I. has become enthusiastic about it and about its potentialities for the future. This experience emphasizes the importance of communication in the life of the Institute. Unless the individual constituents are kept informed about A.G.I. activities enthusiasm for it is more likely to wane than to grow. Fully realizing this David Delo initiated the News Letter which brought timely information concerning earth science activities and earth scientists, in mimeographed form, to subscribers at one dollar per year. This News Letter attained a volume of roughly 1500 subscribers. At this time the numerical strength of the profession was being estimated at about 22,000 and therefore the original News Letter, at its peak, was reaching less than 7 per cent of A.G.I. constituents.

At the April 1954 meeting the Board, realizing that the progress of A.G.I. depends critically on its becoming better and more widely known, voted an expansion of the News Letter itself and of its circulation. It was to be sent to all members of the member societies meeting certain qualifications. Some restriction of the circulation seemed necessary to keep the cost within bounds. It was hoped that a substantial part of the cost could be recovered through the sale of advertising.

The circulation of the expanded Newsletter under the editorship of Charles B. Hunt rose from 11,000, when it was issued initially in September 1954, to 16,000 when it was superseded by GeoTimes in July 1956.

MORE ABOUT AGI

(Continued from page 23)

GeoTimes came into being to satisfy the need for a more distinctive format which would be more attractive to readers and prospective advertisers. Over a two year period GeoTimes continued to grow in circulation until in May 1958 it could claim that it reached essentially all geoscientists in the fourteen Member Societies, a number approaching 30,000. With this snowballing circulation and the trends of the time, rising costs necessitated cutting GeoTimes from 12 to 8 issues per year beginning in July 1958.

Finances

At the time the constitution of the A.G.I. was being drafted the question of how the new Institute was to be financed proved a sticky one. As adopted, the constitution provided that the Institute may receive contributions but it also stated that the member societies could not be assessed for any purpose whatever. It was expected that the member societies would make contributions commensurate with their size and means but there was no commitment. Actually some of the member societies have made only token contributions or none at all.

It cannot be said that a solid foundation for the financial support of A.G.I. was laid by its founders. As the Institute progressed from a part time to a full time executive director the voluntary contributions of the member societies increased but even at their present top level they barely suffice for maintaining an office and staff. At its Chicago meeting in 1956 the A.G.I. Directors voted unanimously that the basic cost of the Institute for staff and office should be the acknowledged responsibility of the member societies. The amount required for this was then estimated at $25,000 annually. For the past several years the member society contributions have approached this amount but in the meantime costs have risen appreciably.

Fortunately for the success of A.G.I. it has been possible to develop other sources of income. These are the Industrial Associate program, the pledged individual contribution program represented by the Committee of One Hundred, the annual solicitation of individual contributions through the columns of GeoTimes and income from the sale of advertising and publications. Funds from these sources have been vital to the conduct of a vigorous work program and their diminution or lack would have prompt and serious consequences upon the effectiveness of the organization. There has also been a one time contribution of $20,000 to the general expenses of the Institute by the National Science Foundation, conditioned on A.G.I.'s raising a like amount of new money for a reserve fund. As a result A.G.I. now has a reserve of invested funds valued at more than $24,000 on September 1, 1958.

At the present time A.G.I. has on its rolls 25 natural resource companies which have enlisted as Industrial Associates. Their contributions during fiscal 1957-58 amounted to $16,150.00. These companies recognize that A.G.I. represents the profession upon which they depend to find and develop their natural resource deposits. Many of them are particularly interested in the activities of the Institute in the field of education. They have a stake in maintaining the numerical and quality strength of the profession. A.G.I. efforts to attract more of the best young minds to the earth sciences, as exemplified by career correspondence and the distribution of career literature and related activities, invite their support.

Together with the funds provided by the member societies the money contributed by individual members of the profession is the most valuable to the Institute. It provides solid justification for seeking additional financial support from outside sources. A professional Institute that is strongly supported by its own constituents has the best chance of gaining outside support for its special projects.

The Committee of One Hundred consists of leaders of the profession who are willing and able to contribute $100 annually, for a period of not less than five years, to the support of A.G.I. Being fully tax deductible these contributions yield the Institute substantially more than the net cost to the contributors. Some members make their contributions year by year. Others have prepaid their pledges for periods up to five years. Contributions may be made in cash or in negotiable securities of equivalent value.

Initiated about two years ago the committee now has 71 members. The roster of the committee should be completed during this tenth anniversary calendar year. Every effort is to be made to do so. Many present members have volunteered. It is hoped that more will do so.

Once each year GeoTimes reminds its readers that now is the time for all good earth scientists to come to the aid of their Institute. In the past the response has

This data sheet when cut out and punched will fit a handy pocket-size notebook available from almost any stationery store. There are many and varied data sheets available commercially in this size. If you have ideas for helpful data sheets write to Dr. R. M. Foose, Stanford Research Institute, Menlo Park, California, Chairman AGI Data Sheet Committee.

MAJOR PUBLIC SOURCES OF GEOLOGICAL INFORMATION*

AGI 8

Geologic information resulting from research and investigations of official public agencies is available at the various offices of these agencies. The following list, arranged alphabetically by states, gives addresses of such offices in the United States concerned with general and basic information on geology. In addition to those listed there are many state agencies concerned with regulation or control of the mineral industries in the particular state involved -- offices of the U. S. Geological Survey devoted to the mineral leasing and management of public domain and district offices of a specialized nature concerned with water resources, topographic mapping, etc. Information on the location and function of these specialized agencies may be obtained in each state from the office listed below.

• ALABAMA
Geological Survey of Alabama
University of Alabama
University, Alabama

• ALASKA
Public Inquiries Office
U. S. Geological Survey
210 E. F. Glover Building
Anchorage, Alaska

• ARIZONA
Arizona Bureau of Mines
University of Arizona
Tucson, Arizona

• ARKANSAS
Arkansas Geological and Conservation Commission
446 State Capitol
Little Rock, Arkansas

• CALIFORNIA
California Div. of Mines
Ferry Building
San Francisco 11, Calif.

Branch Office
California Div. of Mines
Room 4028, State Building
Los Angeles, California

Branch Office
California Div. of Mines
State Office Building No. 1
Sacramento, California

Branch Office
California Div. of Mines
Natural Resources Building
Redding, California

U. S. Geological Survey
4 Homewood Place
Menlo Park, California

Public Inquiries Office
U. S. Geological Survey
1031 Bartlett Building
215 West 7th Street
Los Angeles, California

Public Inquiries Office
U. S. Geological Survey
724 Appraisers Building
San Francisco, California

• COLORADO
U. S. Geological Survey
Denver Federal Center
Denver, Colorado

Public Inquiries Office
U. S. Geological Survey
468 New Custom House
Denver, Colorado

• CONNECTICUT
Connecticut Geological & Natural History Survey
University of Connecticut
Storrs, Connecticut

• DELAWARE
Delaware Geological Survey
University of Delaware
Newark, Delaware

• DISTRICT OF COLUMBIA
U. S. Geological Survey
General Services Administration Building
Between 18th and 19th Streets, N. W.
Washington, D. C.

• FLORIDA
Geological Survey
Tennessee and Woodward
Tallahassee, Florida

• GEORGIA
Dept. of Mines, Mining & Geology
Agriculture Building
19 Hunter Street, S. W.
Atlanta 3, Georgia

• IDAHO
Idaho Bureau of Mines & Geology
Moscow, Idaho

• ILLINOIS
Illinois State Geological Survey
Natural Resources Building
Urbana, Illinois

• INDIANA
Indiana Geological Survey
Owen Hall
Indiana University
Bloomington, Indiana

• IOWA
Iowa Geological Survey
Geology Annex
Iowa City, Iowa

• KANSAS
State Geological Survey of Kansas
Lindly Hall
University of Kansas
Lawrence, Kansas

Southeastern Kansas Field Office
State Geological Survey of Kansas
Pittsburg State Teachers College
Pittsburg, Kansas

• KENTUCKY
Kentucky Geological Survey
University of Kentucky
Lexington, Kentucky

Field Office
Kentucky Geological Survey
Pineville, Kentucky

Field Office
Kentucky Geological Survey
Henderson, Kentucky

• LOUISIANA
Louisiana Geological Survey
Louisiana State University
Baton Rouge 3, Louisiana

• MAINE
Department of Economic Development
State House
Augusta, Maine

• MARYLAND
Department of Geology, Mines & Water Resources
The Johns Hopkins Univ.
Baltimore 18, Maryland

• MICHIGAN
Geological Survey Division
Department of Conservation
Stevens T. Mason Building
Lansing 26, Michigan

• MINNESOTA
Minnesota Geological Survey
University of Minnesota
Minneapolis 14, Minnesota

• MISSISSIPPI
Mississippi Geological Survey
University, Mississippi

• MISSOURI
Div. of Geological Survey and Water Resources
Buehler Building
Rolla, Missouri

Field Office
Div. of Geological Survey and Water Resources
124 Terrace Avenue
Liberty, Missouri

• MONTANA
Montana Bureau of Mines & Geology
Montana School of Mines
Butte, Montana

• NEBRASKA
Conservation and Survey Division
University of Nebraska
Lincoln 8, Nebraska

• NEVADA
Nevada Bureau of Mines
University of Nevada
Reno, Nevada

• NEW HAMPSHIRE
New Hampshire State Planning & Development Commission
Conant Hall
University of New Hampshire
Durham, New Hampshire

over

*Compiled for the AGI Data Sheet Committee by Dr. John C. Frye, Chief, Illinois State Geological Survey. Additional copies may be purchased from the American Geological Institute, 2101 Constitution Ave., N. W., Washington 25, D. C. Price $0.10.

yielded a substantial number of smaller contributions, some fairly substantial, which in the aggregate had significant effect on the financial health of the A.G.I. It is hoped that both the number of contributions and their aggregate amount will continue to increase.

It is important to remember that the substantial grants for specific projects and purposes from the National Science Foundation are being received because A.G.I. is qualified and ready to manage the projects being supported. The dollars which have been contributed by the profession were essential to its being prepared to assume the responsibilities involved. The results of the projects will themselves considerably benefit the profession. The professional seed dollar will indeed insure the harvest.

• NEW JERSEY
Bureau of Geology and Topography
520 East State Street
Trenton 25, New Jersey

• NEW MEXICO
New Mexico Bureau of Mines and Mineral Resources
Socorro, New Mexico

• NEW YORK
Geological Survey
New York State Museum and Science Service
New York State Education Building
Albany 1, New York

Oil and Gas Office
Geological Survey
New York State Museum and Science Service
Wellsville, New York

• NORTH CAROLINA
Division of Mineral Resources
253 Education Building
Raleigh, North Carolina

• NORTH DAKOTA
North Dakota Geological Survey
University of North Dakota
Grand Forks, North Dakota

• OHIO
Division of Geological Survey
Dept. of Natural Resources
106 Orton Hall
The Ohio State University
Columbis 10, Ohio

• OKLAHOMA
Oklahoma Geological Survey
University of Oklahoma
Norman, Oklahoma

• OREGON
State of Oregon
Dept. of Geology and Mineral Industries
1069 State Office Building
Portland 1, Oregon

Field Office
State of Oregon
Dept. of Geology and Mineral Industries
2033 First Street
Baker, Oregon

Field Office
State of Oregon
Dept. of Geology and Mineral Industries
239 S. E. "H" Street
Grants Pass, Oregon

• PENNSYLVANIA
Bureau of Topographic & Geologic Survey
Dept. of Internal Affairs
604 South Office Building
Harrisburg, Pennsylvania

• RHODE ISLAND
Rhode Island Development Council
State House
Providence 2, Rhode Island

• SOUTH CAROLINA
South Carolina Development Board
Wade Hampton Office Bldg.
Columbia, South Carolina

• SOUTH DAKOTA
South Dakota Geological Survey
Union Building
University of South Dakota
Vermillion, South Dakota

• TENNESSEE
Division of Geology
G-5 State Office Building
Nashville 3, Tennessee

• TEXAS
Bureau of Economic Geology
The University of Texas
10th and Red River Streets
and
Balcones Research Center on U. S. Highway 183
Austin, Texas

Public Inquiries Office
U. S. Geological Survey
602 Thomas Building
1314 Wood Street
Dallas, Texas

• UTAH
Utah Geological and Mineralogical Survey
200 Mines Building
University of Utah
Salt Lake City, Utah

Public Inquiries Office
U. S. Geological Survey
504 Federal Building
Salt Lake City, Utah

• VERMONT
Vermont Geological Survey
East Hall
University of Vermont
Burlington, Vermont

• VIRGINIA
Virginia Division of Mineral Resources
Charlottesville, Virginia

• WASHINGTON
Division of Mines & Geology
Dept. of Conservation
335 General Administration Building
Olympia, Washington

• WEST VIRGINIA
West Virginia Geological and Economic Survey
Morgantown, West Virginia

• WISCONSIN
Wisconsin Geological and Natural History Survey
University of Wisconsin
115 Science Hall
Madison, Wisconsin

• WYOMING
Geological Survey of Wyoming
University of Wyoming
Geology Hall
Laramie, Wyoming

Other sources

A comprehensive listing of sources of geological information is contained in, "DIRECTORY OF GEOLOGICAL MATERIAL IN NORTH AMERICA", pp. 208, 1957, available from American Geological Institute, 2101 Constitution Avenue, N. W., Washington 25, D. C. $3.00, send payment with order.

OTHER AGI DATA SHEETS

Nos. 1-3—Geologic Map Symbols
(Special price to educational institutions of $0.15 per set of 3 in quantities of 10 sets or more)
Price (set of 3) $0.25

No. 4—Availability of Publications and Other Data of the U. S. Geological Survey Price $0.10

No. 5—Geologic Column and Scale of Time Price $0.10

No. 6—Comparison Charts for Visual Estimation of Percentage Composition Price $0.10

No. 7—Roundness of Sedimentary Particles Price $0.10

No. 8—Major Public Sources of Geological Information Price $0.10

Send cash with order to
American Geological Institute
2101 Constitution Ave.
Washington 25, D. C.

GEOSCIENTISTS UNITE?

(Continued from page 8)

headquarters in New York, October 22, 1944. Those in attendance were:

GEOLOGICAL SOCIETY OF AMERICA
A. I. Levorsen and C. R. Longwell

MINERALOGICAL SOCIETY OF AMERICA
Paul F. Kerr

AMERICAN GEOPHYSICAL UNION
Ernst Cloos and Archie Blake

PALEONTOLOGICAL SOCIETY
B. F. Howell and C. O. Dunbar

SOCIETY OF ECONOMIC PALEONTOLOGISTS & MINERALOGISTS
John B. Reeside, Jr.

SOCIETY OF VERTEBRATE PALEONTOLOGY
Edwin H. Colbert and Glenn L. Jepsen

SOCIETY OF ECONOMIC GEOLOGISTS
H. E. McKinstry and Thomas B. Nolan

AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS
William B. Heroy and A. B. Parsons

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS
Ira H. Cram and A. Rodger Denison

Secretary, Lincoln R. Thiesmeyer (*Chairman of original group*)

Observers: A. F. Buddington, W. Taylor Thom, Adolph Knopf and H. R. Aldrich.

At the constitutional meeting, A. I. Levorsen was chairman. Inasmuch as there were numerous new faces in the group, much time was absorbed in a rehash of concepts of the objective and manner of organization. Considerable discussion was given to the proposal that the Geological Society of America be reorganized to provide the necessary service to the entire profession, but for a variety of reasons this plan was not considered generally acceptable. In the end those attending the New York meeting generally agreed that a federation of societies offered the best approach to the situation.

There were repeated references to the organizational structure of other scientific federations, particularly the American Institute of Physics which was already well established. Dr. Thiesmeyer pointed out the numerous similarities in objectives to those of the AIP and drew attention to the possibility that a geological federation might well consider the coordination of publications as the Institute of Physics had so successfully accomplished. Dr. Aldrich, out of his knowledge of publications of the GSA and its satellite societies, pointed out that the coordination of printing did not afford the same opportunities to a geological federation as it did for the AIP when it was founded.

It was at this meeting that the group formally accepted the name *American Geological Institute* as proposed by Archie Blake, one of the AGU representatives. The group, during the two-day session, proceeded to hammer out a revision of the constitution first drafted in Chicago by the Thiesmeyer Committee.

The eleven national societies previously listed were designated as eligible for membership as founders and it was voted that the Constitution should become effective when ratified by seven of these societies. A summary of the Constitutional Meeting prepared by Dr. Thiesmeyer is for the most part reproduced in a report to AAPG members by A. Rodger Denison.[5]

The records for the period following the Constitutional Meeting are obscure, but apparently the Constitution was forwarded to the societies along with a covering letter by Secretary Thiesmeyer.

WASHINGTON MEETING

In 1945 the conferences on the problem to improve cooperation among geologists took a new course, when on July 27 an invitation was issued by W. W. Rubey asking the societies to attend a conference to be sponsored jointly by the National Research Council and the Geological Society of America. In addition to the eleven societies invited to the previous meetings, the Canadian Institute of Mining and Metallurgy (CIMM) and the American Association for the Advancement of Science (AAAS), Section E (Geology and Geography) were asked to participate. This meeting was held in Washington on October 12-13, 1945 with the following in attendance:

Howard A. Meyerhoff, AAAS, Section E
Ira H. Cram, AAPG
W. Taylor Thom, Jr., AGU
W. B. Heroy, AIME
Frederick J. Alcock, CIMM
Chester R. Longwell, GSA
Paul F. Kerr, MSA
H. E. Vokes, PS
G. D. Louderback, SSA
Hugh E. McKinstry, SEcG
Carey Croneis, SEPM
E. A. Eckhardt, SEGp
Walter L. Camp, SVP

Observers:

H. R. Aldrich, GSA
M. G. Gulley, AAPG
W. W. Rubey, NRC

This group included a number of men who had participated in the earlier deliberations; however, A. I. Levorsen and L. R. Thiesmeyer who had been leaders at the previous sessions in Fort Worth, Chicago and New York, were not in attendance.

At this meeting it was reported that a special nine-man committee of the GSA had deliberated during the months since the Constitutional Meeting in New York in October of 1944 and had recommended

(Continued on next page)

[5]A. Rodger Denison, Proposed Geological Institute of Americea, Bull. AAPG, Vol. 29, No. 2, pp. 240-245, 1945.

GEOLOGISTS UNITE?

(Continued from page 27)

to GSA that it defer action on ratification of the Constitution of the American Geological Institute pending further study. The AIME, SSA and SEGp had ratified the Constitution prior to the Washington meeting.

The GSA appeared to prefer a trial organization in the form of an informal council of societies, including the CIMM and AAAS, Section E. To use the words of Dr. Aldrich, the GSA felt that a premature permanent new organization might be "akin to putting up a mill before we have the ore . . . we should provide the ore and determine later how large a mill (is to be built)." There was another view expressed that Section E of the AAAS could be expanded in function to provide the coordination of geologists. This proposal met with little favor inasmuch as Section E was recognized as only a part of an organization, the AAAS, representing all science, and that consequently the representation of geologists would not be its paramount purpose.

It should be pointed out that still another approach to the unification of geologists had been proposed. It had been suggested that the Division of Geology and Geography, National Research Council, be asked to undertake to provide a committee or council of societies as a Division function. Chairman of the Division, Dr. W. W. Rubey, who served as chairman of the Washington conference, pointed out that the functions of the Division and the NRC were not generally compatible with the objectives of the proposed union.

In the Washington conference, Dr. E. A. Eckhardt, representing the Society of Exploration Geophysicists, emerged as one of the staunchest supporters of the proposed federation—the American Geological Institute. As a member of the American Physical Society and the physics federation, the American Institute of Physics, he could speak with experience to the point that the geological federation, if properly managed by the constituent societies, would not encroach upon the prerogatives of the individual societies. He pointed to the fact that the member societies had actually been strengthened by association with the AIP.

Camp and Heroy Committees

Two committees were appointed at the October 1945 Washington conference and it was voted to continue the body through 1946 under auspices of the National Research Council. The committee headed by Charles L. Camp and composed of Cram, Croneis, Kerr, and Longwell was charged with preparing a summary *"Statement Concerning Needs for Closer Cooperation Among Geologists"*[6] which it did under the following headings: (1) Improvement of Public Relations, (2) Improvement of Government Relations, (3) Improvement of Industrial Relations, (4) Improvement of Professional Relations (including Education), and (5) Stimulation of Research.

The second committee with Wm. B. Heroy[6] as chairman and consisting of Cram, Croneis, Longwell, and Thom was instructed to prepare a brief review of the proposed organization and mode of operation of the American Geological Institute as it had been developed at the Constitutional Meeting in New York. Although these reports were completed by mid-1946, they were not distributed to the thirteen societies until November 18, 1946.

Bronk Offers Opportunity

The next move of great significance in the crystallization of the American Geological Institute came at the annual meeting of the Division of Geology and Geography, National Research Council, May 2, 1947, when Dr. Detlev W. Bronk spoke to the assembled geologists concerning the policies and objectives of the NRC. He drew attention to the American Institute of Biological Sciences which had just been organized under auspices of the Council, and he indicated that the National Research Council would be receptive to an arrangement which would bring together the appropriate geological societies as the American Geological Institute operating under the National Research Council. Drs. Heroy, Aldrich and Rubey conferred immediately with Dr. Bronk and the societies were informed of this development by Dr. Heroy.

A. I. Levorsen, as chairman of the New York Constitutional Meeting, issued an invitation to all societies to attend a meeting on October 27, 1947, to further discuss with Dr. Bronk and others the organization of the AGI under the Academy-Research Council. Present at this meeting were:

AAPG: Ira H. Cram and Wm. B. Heroy
AGU: O. E. Meinzer
AIME: A. R. Denison
GSA: C. R. Longwell and H. R. Aldrich
MSA: Earl Ingerson
PS: J. Brookes Knight
SEcG: Thomas B. Nolan
SEPM: John B. Reeside, Jr.
SEGp: E. A. Eckhardt
SVP: C. L. Gazin

[6]Chas. L. Camp and Wm. B. Heroy, "Cooperation among Geological Societies, and American Geological Institute," Bull. AAPG, Vol. 31, No. 2, pp. 417-420, 1947.

Others in attendance: A. I. Levorsen, Chairman; Detlev W. Bronk, Chairman, NRC; Arthur Bevan, Chairman of Division of Geology & Geography, NRC; W. W. Rubey, Past Chairman of Division; and M. H. Trytten, Director, Office of Scientific Personnel.

Dr. Bronk, on behalf of the Research Council, extended the invitation to the gathered representatives of ten societies to unite in forming the American Geological Institute under the NRC. He outlined the history and objectives of the National Academy of Sciences–National Research Council. To aid in starting the Institute, he tendered the aid of the NRC through the facilities of the Division of Geology and Geography.

Dr. Bronk's invitation to the assembled geologists was received enthusiastically and two work committees were immediately formed to prepare necessary materials for further consideration of the assembled body. Wm. B. Heroy, aided by A. R. Denison and E. A. Eckhardt, drafted necessary revisions to the Constitution of the AGI while Ira H. Cram, with the help of C. R. Longwell and W. W. Rubey, prepared an explanatory letter to go to the societies giving the "pros" and "cons" of the suggested mode of organization. The results of these two work groups were approved before the group adjourned that evening. The revised Articles of Organization (Constitution) and the letter of explanation were mailed to the societies in December 1947.

AGI Born at Last

The American Geological Institute was born officially on November 15, 1948, when directors and alternates representing the eleven Member Societies which had ratified the Articles of Organization convened for the Founding Meeting of AGI in Washington, D. C. As indicated at the beginning of this historical account, Levorsen, Heroy, and Ingerson were elected as the first officers of the Institute. The Directors of the newly formed federation of geologists and alternates attending the Founding Meeting were as follows:

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS
*Ira H. Cram (M. G. Gulley, *alternate*)
William B. Heroy

AMERICAN GEOPHYSICAL UNION
Ernst Cloos
W. T. Thom, Jr.

AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS
A. R. Denison
J. L. Gillson

GEOLOGICAL SOCIETY OF AMERICA†
Philip B. King
A. I. Levorsen

MINERALOGICAL SOCIETY OF AMERICA
*Paul L. Kerr (W. F. Foshag, *alternate*)
Earl Ingerson

PALEONTOLOGICAL SOCIETY
G. Arthur Cooper
*R. C. Moore (H. S. Ladd, *alternate*)

SEISMOLOGICAL SOCIETY OF AMERICA
*Eliot Blackwelder (George D. Louderback, *alternate*)
*James B. Macelwane, S.J. (J. T. Wilson, *alternate*)

SOCIETY OF ECONOMIC GEOLOGISTS
Thomas B. Nolan
*T. M. Broderick (George M. Fowler, *alternate*)

SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS
John B. Reeside, Jr.
F. W. Rolhausen

SOCIETY OF EXPLORATION GEOPHYSICISTS
E. A. Eckhardt
*L. L. Nettleton

SOCIETY OF VERTEBRATE PALEONTOLOGY
Everett C. Olson
*E. H. Colbert

NATIONAL RESEARCH COUNCIL
Detlev W. Bronk, *ex officio*
Arthur Bevan, *ex officio*

†Henry R. Aldrich, *Observer for GSA*
**Not present.*

The new board organized seven standing committees relating to (1) Education, (2) Personnel, (3) Publications, (4) Research Information, (5) Public Relations, (6) Government Relations, and (7) Finance. The activities of the Institute began in earnest the following June, when David M. Delo assumed the duties as first Executive Director of the AGI.

The AGI was born after more than six years of study, debate and planning. Viewed in retrospect the struggle to establish the Institute was difficult, due in substantial measure to the classic conservatism of a large segment of the geological profession and its reactionary response to metamorphism. The documentary evidence of the formative period is a fascinating study of the different philosophies which have shaped the course of geology and geologists in the United States. One could speculate that, without the welding force of the National Research Council under the stimulating influence of Dr. Bronk, there would be no American Geological Institute or its counterpart in the scientific community of our country to this day.

AGI HISTORY—*Continued from page 17*

The Turning Point

To single out the one event which marked the turning point in AGI's welfare, your attention is focused on the proposal made by Hunt at the spring 1954 meeting. He presented a mock-up of the *News Letter* in a new printed format and proposed this *News Letter* be distributed without charge to all persons who had returned questionaires to the Earth Science Register. There were then about 12,000 registrants.

The mimeographed *News Letter* which had been started by Delo had only about 1,200 subscribers at $1.00 a year. It was a good and useful tool, but it was reaching only about 7 per cent of the profession as then estimated.

Hunt's diagnosis that the Institute needed a direct channel of communication with all geoscientists scored a bull's eye. When 12,000 copies of the new *News Letter* went into the mail in May 1954 at least 50 per cent of the recipients got their first look-see into the operations and programs of the Institute. The *News Letter* in its new design and greatly increased circulation became a regular AGI publication beginning in September 1954. The Board of Directors at the April 1955 meeting was most enthusiastic about the *News Letter* and its reception by the profession. As a matter of fact they voted that it be increased from the 9 issues a year proposed by Hunt to 12 issues a year. Perhaps it was an oversight, but they made no specific suggestions concerning the needed additional funds for this increase in issues.

When Dr. E. A. Eckhardt assumed the presidency of AGI in November 1954, he found himself faced with another internal crisis. Mr. Hunt, Executive Director on leave from the U. S. G. S., announced that he wanted to return to geologic field research on July 1, 1955. Vice-President M. M. Leighton was designated to screen prospects for a successor to Hunt, and it was urged that the man to be selected be urged to serve at least five years in the post.

As so we see another leg of the 10 year cruise of the good ship AGI draw to a close. But she was a much more sea worthy craft than she had been—for many reasons. The owners had been spending some money on her, so she was no longer shabby, creaky, and unattractive to owners and passengers. She had a new ship-to-shore communications system (the *News Letter*) whose message could be picked up by everyone. Furthermore, among the owners there had been disagreement in the ranks of the owners of the biggest block of stock[2] (AAPG) which was settled in favor of the management (AGI).[3]

All in all the owners of the ship were beginning to see their investment pay off.

Financial Stability Stressed

The Institute under the guidance of President Eckhardt not only moved to strengthen its external program, but also to meet its biggest internal problem—sound financing. Dr. Eckhardt realized the need for financial stability if the Institute was to move ahead. He worked hard to establish a regular program of support from Industrial Associates, companies with a vested interest in geology and mineral resources. He also foresaw the need for a Reserve Fund to serve as a stabilizer to operations.

The July 1955 *News Letter* announced the appointment of Dr. Robert C. Stephenson as the fourth Executive Director of the American Geological Institute to succeed Hunt, effective October 1, 1955. With a background in both mining and petroleum geology in private industry and 8 years of service as Assistant State Geologist in Pennsylvania, Stephenson brought still other concepts and ideas to the AGI. The qualities which Stephenson brought to the job he contends are accurately stated by columnist Dorothy Thompson of herself in her last syndicated column which appeared in many papers throughout the country in August 1958; we quote *"Allowing for natural handicaps—my intelligence and knowledge, despite intense industry which I can justly claim, are limited . . ."*

In agreement with Dr. Eckhardt's views that the Institute must be financially sound to be effective, the new Executive Director expressed the opinion to the Board that almost anything could be accomplished

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[2] **Report of 41st Annual Meeting, Bull. AAPG, p. 1142-1157.**

[3] **"October 11, 1954. Dear Dr. Longwell: The Executive Committee of the American Association of Petroleum Geologists has unanimously approved my recommendation that the Association continue its financial support of the American Geological Institute. Our appropriation for this year probably will be for the amount of $7,500.00.**

"We also recommend to the incoming Executive Committee that it make a similar appropriation and that the officers of our Association give increased support to the Institute.

Yours very truly,

Edw. A. Koester, President
Amer. Assoc., Petrol. Geologists"

with the proper application of *TIME, MONEY* and *EFFORT.*

Dr. Morris M. Leighton, Chief Emeritus of the Illinois Geological Survey, took over as President of AGI in November 1956 and shoulder to shoulder with Past-President Eckhardt and Vice President J. L. Gillson led the Institute through the most critical and effective period of consolidation and reorientation. For the first time discussion of finances shifted from "how little can we get by with?" to "how much is required to do the job right?" A realistic budget was adopted for the first time at the spring meeting of the AGI Board in Chicago, April 1956 and the Member Societies responded by substantially increasing their level of support (from $14,000 to about $24,000 annually). Several societies pledged a "percentage of dues assessment" as a regular pattern of contribution to AGI in an effort to assure a more predictable income.

Geochemical Society

The application of the Geochemical Society as a Member Society was approved by the Board in Chicago and sent to Member Societies for their acceptance. The Society was formally accepted as the fourteenth Member Society of the American Geological Institute early in 1957.

It was at this Chicago Board Meeting that a new magazine format was introduced for consideration of the Board. A motion by Paul Lyons, with a second by Walter Bucher, that "The *News Letter* be named *GeoTimes* effective at such time as the Editor may decide," was approved by the Board. *GeoTimes* was born three months later with the appearance of the July 1956 premier edition *GeoTimes* was conceived to give the profession a distinctive magazine whic would be devoted to geoscientists, their work and welfare. *GeoTimes* was still a further step to fill the need which Dave Delo and Charlie Hunt saw for a pipeline of communication to the profession. The metamorphism was possible only because the Institute had itself changed to a more stable phase.

The Directors who approved the new magazine were not disposed, however, to be too generous with *GeoTimes.* It had been pointed out that the magazine in its new format would have significant advertising potential which would develop slowly. The Directors cautioned the Editor that the changeover from the *News Letter* to *GeoTimes* would have to carry itself and ruled specifically that funds contributed by the Member Societies were for the maintenance of the AGI office and could not be diverted to the magazine. In the face of this, *GeoTimes* was started and the circulation spiraled from 16,000 to 30,000 in less than two years as all geoscientist members of Member Societies were added to the mailing list.

Pipe Line to All

In passing, it should be pointed out that from 1949 to 1954 the Institute had only a thread-like line of communication with the profession through its mimeographed *News Letter,* 1,200 circulation. Little wonder that most people pleaded ignorance of AGI, its program and accomplishments. A pipeline was substituted for the thread when AGI started the revamped *News Letter* with free distribution in 1954. *GeoTimes* with its present circulation of 30,000 reaches essentially everybody in the profession. As a result the profession now knows more than ever before what is going on in the profession and can no longer justly plead ignorance of AGI's activities.

Reflect for a moment on the impact of the circulation increases outlined above. Not only has AGI had to shoulder the cost of a circulation which has jumped from 1,200 to 12,000 and then to 30,000 in the short span of less than five years, but it has also meant that the number of communicants which AGI now serves has increased many, many-fold. The volume of work and the diversity of problems have grown by leaps and bounds—far faster than the provisions to cope with them.

Ship More Prosperous

But back to the good ship AGI—with the owners taking greater interest in its affairs than ever before, it has been possible to put the ship into condition never before possible. It has a large and reasonably satisfied passenger list and the officers have provided a diverse program of activities for the benefit of the passengers. Things could be better, you understand, but it is felt that application of "time, money, and effort" can correct most of the needs.

There is no need to relate in detail the activities of the Institute in the last several years inasmuch as the more significant developments may be readily reviewed by spinning through past issues of GeoTimes.

When President Gillson reported to the Board as he retired in November 1957, he could cite some major accomplishments. The greatest of these was the completion publication and wide acceptance of the

(Continued on next page)

AGI HISTORY—*Continued from page 31*

AGI *"Glossary of Geology and Related Sciences"* the geological best seller of the year. The patient, untiring efforts of J. V. Howell and the more than 90 specialists who aided in the Glossary Project were outstanding and brought new recognition to the Institute. Gillson could point to the generous action of the AAPG Executive Committee in turning over to AGI the revision of the *"Directory of Geological Material in North America."* Acceptance by the AGI was possible by using Glossary income to defray printing costs of the Directory.

Reserve Increased

He could also point to the wide acceptance of GeoTimes and significant contributions of AGI to *"Geology Month in Scouting,"* October 1957. He was able to report that the Finance Committee under the able direction of Dr. Eckhardt had met the challenge of matching the $20,000 grant by the NSF to aid AGI by developing a like amount in new funds from private sources. At the close of the year the Institute was able to add $20,000 to the Reserve Fund.

To round out the story of the first 10 years of AGI, Dr. J. V. Howell will be able to report that over 15,000 copies of the new career booklet were distributed so far this year; that the revised *"Earth for the Layman"* has been widely introduced and well received; that the AGI Master List was completed and results published in the May issue of GeoTimes; and that the Institute had numerous new activities under way. Among these are the Russian Translation Program and several significant new education projects. He can point to new and significant accomplishments in the area of government relations. It could be that he would choose to draw the attention of the profession to the emergence of the Institute, after 10 years of frustrating struggle, as the organization envisioned first by Carey Croneis in 1942.

It is fitting, when pausing at milepost 10, to take stock of reality. AGI is a federation of 14 societies—it has no individual members—yet it is dedicated ultimately to individual geoscientists and their welfare and is completely dependent on individuals to make it function. The Institute serves the interests of all—in one way or another—and seeks only in return the support of all geoscientists—in one way or another.

Popular Geology in Print

by Mark W. Pangborn Jr.

The forthcoming centenary of "The origin of species" is producing a renewed interest in the doctrine of evolution. Two authoritative new histories, suitable for serious high school students and laymen, are A Hundred Years of Evolution, by *George Stuart Carter* (Macmillan, 1957, $3.75) and *Loren Eiseley's* Darwin's Century (Doubleday, 1958, $5). In 200 pages Carter clearly and concisely summarizes the changes that Darwin's doctrine has undergone since 1859; a glossary is provided, but no bibliography. Eiseley's longer book incorporates much more information on the personalities and researches of Darwin and the other scientists than does Carter; this may confuse the beginner, but the sophisticated reader will prefer Eiseley's more literary approach and relish his fine style; a selected bibliography is furnished.

Evolution by Natural Selection (Cambridge U. Press, 1958, $4.75) consists of Darwin's "Sketch" of 1842 and his longer "Essay" of 1844, early drafts of the "Origin of Species"; also included in his 1858 joint statement, issued with A. R. Wallace, on natural selection, the whole edited, with notes and introduction, by *Gavin de Beer.*

Among the new paperbacks are *Darwin's* Origin of Species, 6th ed. of 1872 (New American Library, 1958, $.50), and *Julian Huxley's* Evolution in Action (New American Library, 1957, $.50), a brief, expert summary of how evolution works.

History of science fans will be pleased to know that the charming journals of William Bartram, who explored Florida and the Southeast in the 1770's, receive definitive treatment in *Francis Harper's* Travels of William Bartram (Yale U. Press, 1958, $8.50); elaborate notes and indexes and an exhaustive bibliography are provided. A cheaper edition, quite suitable for readers with good eyes, is the recent reprint of *Mark Van Doren's* 1928 book, The Travels of William Bartram (Dover Publs., 1957, $2). *Josephine Herbst's* New Green World (Hastings House, 1954, $4) is a biography of Bartram's famous father, John.

ROCK CHIPS

by SANDSTONE SAM

Wildcat: Das Holen vas is ben gediggen fur hineinpouren der money und der hope.

• • •

The limestone cap rock on a conspicuous horst was found to contain solution features on its surface. Question: Which came first, the "karst" or the "horst"?

• • •

"By interplay of natural forces, clay became shale, sand became sandstone, and lime became limestone," from p. 10, Water Well Drilling with Cable Tools.

• • •

Geologists never change their minds . . . they eventually die off.

• • •

An observation by your roving reporter, SsS:

If AGI had a penny for every word that poured forth in debate between 1942 and 1948 over whether or not the geologists should get together (to form AGI), the Institute would have investment income which would rival that of the Ford Foundation.

Furthermore, if the arguments since, pro and con, on the subject "Why AGI?" were similarly taxed at a penny-a-word, the Institute could be housed in a building as palatial as the CIO-AFL headquarters.

You saw it in GeoTimes . . .

Russian Journal of Petroleum Geology

The principal Russian journal of petroleum geology, *Geologiya Nefti*, is now available in English Translation. It is being translated by Dr. James W. Clarke, Columbia, South Carolina geologist as a private enterprise. The translated journal became available in June. It is to be issued 24 times a year. The journal carries papers on a wide range of topics relating to geology and geophysics of petroleum exploration. The subscription to the journal is $18.00 per year or 6 months for $9.00. *For further information write Dr. James W. Clarke, Editor, Petroleum Geology, 533 Harden St., Columbia, South Carolina.*

DEAR EDITOR:

I have often wondered why geology does not have a magazine like astronomy's *Sky & Telescope*. When young enthusiasts come to me, there is no geological periodical to recommend to them. Why not? Wouldn't the publishing of such a magazine be a project worthy of and appropriate to the American Geological Institute?

Sincerely yours,

LOU WILLIAMS PAGE

EDITOR'S NOTE: This idea was suggested repeatedly during the AGI organizational discussions, but funds and staff have never been available to permit consideration of such a magazine.

DEAR EDITOR:

Maxwell's horror at the low percentage of geological Ph.D.'s as compared with chemists is like comparing eggs and tomatoes. Are we really inherently academic dullards just because we begin practicing our science three years sooner than chemists? The fact that Ph.D.'s may not be given preferred treatment in industry is perhaps partly their own fault—on some of them the extra three years of school has dulled their ability to think clearly and concisely and to communicate these thoughts with their management.

I certainly commend any man who has taken the time and effort to obtain an advanced degree. But let's not get starry-eyed about the value of an advanced degree nor weepy-eyed because the President doesn't roll out the nylon carpet when the Ph.D. comes looking for a job. In our democratic system men still are judged by their ability and performance rather than their titles, thank God.

Yours very truly,

EDWARD A. GRIBI, JR.

DEAR EDITOR:

Dr. Lucke's letter in the last issue (July-August, 1958), trying to defend the time-honored Douglas Johnson shoreline classification, recalls the troubles which we used to have at Illinois (about 30 years ago) in using this system for our elementary laboratory classes. We found that our best examples of "emerged shorelines" which were based on barrier islands were the result of submergence due to sea level rise; many of our examples of "submerged shorelines" were glacial excavations and had recently been emerging due to glacial recoil; and our "neutral shorelines" which were deltas were areas of subsidence. One wonders how geology teachers can, with a clear conscience, still use this confused system unless perhaps they follow Hermut Valentin's classification which depends on old tide gauge records, many of which are of doubtful validity. If they do use tide gauge records they will probably have to give up most of the type examples such as are found in typical manuals and out-of-date textbooks.

Sincerely yours,

FRANCIS P. SHEPARD

DEAR EDITOR:

The article in the March issue of A.A.P.G. by Mr. Louie Sebring ("Chief tool of the petroleum exploration geologist: the subsurface structural map") has clarified for many of us some puzzling usages of the word "geologist".

Webster defines geology as "The science which treats of the history of the earth and its life, especially as recorded in the rocks." The emphasis here is on origin, process, evolution, set in an immense framework of time. The concept of geologic time, above all else, distinguishes the geologist. Civil engineers (and others not so civil) measure the strength of rocks, chemists analyze the rocks, statisticians carefully correlate the curious crenellations of the crinoid calyx, but none of this is geology unless it is pertinent to the elucidation of earth history. The broad training required by the geologist is necessitated by the diversity of natural environments, past and present, within the crust and upon it. The record of all this is in the rocks, the natural habitat of the geologist.

Now we learn from Mr. Sebring that "many geologists in the Gulf Coast have never prepared a sample log." We turn to the section entitled "Field Mapping" and find that it is all about electric logs. The activities described in the article are economically valuable; they undoubtedly re-

quire intelligence and skill, but I submit that they are not geology. Let the practitioners of this profession select a suitable name for it, for by including it in "geology" we do twofold harm.

Firstly, we oblige those who intend to take up this work to study geology for four years when one would suffice. Custom requires these students to imbibe the principles of Lyell and Logan (two dodos who never found a barrel of oil); when engineering courses would serve them better.

Secondly, students sincerely interested in geology take employment in ....., in the innocent belief that they will be practicing their chosen profession.

The petroleum industry has utilized, and will continue to utilize, both varieties of "geologist" described above. A distinction in terminology, recognizing the situation, would avoid much misdirection of effort and talent.

"Saxum in manu duo in capite valet."

DR. GRABENHORST

DEAR SIR:

In a review of *General Geology Laboratory Workbook*, Ellison, ed. (*Geotimes, May 1958, p. 20*) "J.F." says, "Except for the approach (in shorelines and shore features) of using submerging and emerging shorelines, instead of primary and secondary shorelines, the handling of most subject matter is up-to-date."

What are "primary and secondary shorelines?" Where may I see a discussion of these up-to-date terms? Will they be added to the next edition of the A.G.I. *Glossary of Geology and Related Sciences?*

Sincerely yours,

MARTIN RUSSELL

GENTLEMEN:

Please accept my $5.00. I am sending it for my son, who is in graduate work at Univ. of Missouri. I get to read GeoTimes before sending it on to him and I am sure it is no more than fair that I help Sandstone Sam.

Respectfully yours,

E. M. WHITE, SR.

OIL AND GAS IN THE FOUR CORNERS. *Compiled and edited by Paul J. Kuhn. 298 pp., 1958, National Petroleum Bibliography, Amarillo, Texas. $25.00.*

This timely volume is a reference work of considerable scope which combines in one volume a wealth of data useful to the industry. The term, Four Corners, is used in a generous sense to include nearly the entire Colorado Plateau except the Uinta basin. The Table of Contents lists only the data compilations for producing fields in this large region, but the book actually presents to the reader much more. Additional chapters discuss briefly the following topics: Structure and stratigraphy of the region, Producing horizons, The Four-Corners pipeline, Oil and gas potential of northern Arizona, Production methods in the San Juan basin, New Mexico, and Drilling practices and problems.

The bulk of the volume is devoted to a systematic tabulation of producing fields catalogued under the headings: (1) Discovery Data, (2) Geological Notes, and (3) Development-Production.

Also included for each field or area are typical electric or radio-activity logs and a location map. (Field data for Colorado pools are also available from a volume published in 1954 by the Rocky Mountain Association of Geologists in somewhat greater detail.) Index maps of subregions provide geographic orientation.

The essence of this valuable reference volume is its timely aspect. In a province which has moved so far so fast, it will fill a widely felt need. Understandable speed in editing has resulted in occasional typographical errors.

W.W.M.

WORLD GEOGRAPHY, *edited by Otis W. Freeman and John W. Morris, 623 pp., 1958, McGraw-Hill Book Company, Inc., New York, $10.75.*

This regional geography text has been prepared by 16 teacher-regional specialists and will be useful in college survey courses, in senior high school and as a general reference tool.

Part I, Western Hemisphere, devotes three of its six chapters to the U.S. (a rather disproportionate amount in view of the book's title and the number of pages allotted to other large countries); the other

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BOOKS—*Continued from page 38*

chapters deal with Canada, Alaska and Greenland, Middle and South America. Part II, Eastern Hemisphere, covers in ten chapters: Northwestern and Central, Southern Peninsular, and Eastern Europe; U.S.S.R.; North Africa and the Near East, Central and Southern Africa; Central Eastern Asia, South and Southeast Asia; Australia, Oceania, and Antarctica. Each chapter deals briefly with the physical setting, geographic regions, population and economic development of the region in question and of each nation within it, with a note on problems and prospects and some questions on the text.

A glossary of common geographic terms follows the text. The numerous excellent photographs and maps contribute greatly to the value and attractiveness of this book.

A.C.S.

PHYSICAL GEOLOGY, *2nd Edition, by L. Don Leet and Sheldon Judson, 502 pp., 1958, Prentice-Hall Inc., Englewood Cliffs, N. J., $7.50.*

From the introductory chapter dealing with the nature and scope of physical geology to appendix D covering topographic and geologic maps, the second edition of this popular physical geology textbook is a much improved volume. Most noteworthy improvement is the reorganization and more concise presentation of material. In the new edition, for example, the section on igneous rocks is followed by a chapter on igneous activity. In the 1954 edition, these two intimately related subjects were separated by some 280 pages.

New chapters covering geologic time, lakes and swamps, metamorphism and metamorphic rocks, and expansion of existing chapters has added considerably to the content of the book.

These changes, plus the many desirable features of the first edition: i.e., excellent illustrations, numerous well-organized charts, and a relatively complete glossary, make this an outstanding book for an introduction to physical geology.

R.L.H.

THE FUTURE SUPPLY OF OIL AND GAS *by Bruce C. Netschert, 134 pp., 1958. Johns Hopkins Press, Baltimore 18, Md. $3.00.*

The book is the first part of a larger study of the energy position of the United States which is being made by the Energy and Minerals Program of Resources for the Future, Inc. The author estimates that the "resource base" (oil and gas in place) for the United States and adjacent continental shelf is on the order of 500 billion barrels of oil and 1.2 quadrillion cubic feet of gas. He concludes that in 1975 the "availability" will be about 6 billion barrels of crude oil and 22.5 trillion cubic feet of natural gas per year with no appreciable increase in constant dollar costs. (Production in 1956 was 2.6 billion barrels of crude oil and 10.9 trillion cubic feet of natural gas.) The "availability" figures are not a forecast of production which will depend upon demand and other considerations being analyzed in another part of the larger investigation of the United States energy position. In this report, technology is considered a dynamic factor of great importance in its impact on future oil and gas availability.

The findings imply that the United States is not faced with an urgent need to develop atomic power to keep domestic energy costs from rising and the coal industry should not expect extraordinary benefits as a result of the pressure of costs on the prices of oil and gas. An ample domestic availability of crude oil provides a new perspective for considering the oil import problem.

P.B.

LANDSCAPES OF ALASKA, THEIR GEOLOGIC EVOLUTION, *edited by Howel Williams. Berkeley, U. of California Press, 1958. 148 pp. $5.00.*

In this handsome volume, 12 U.S.G.S. experts authoritatively summarize Alaska's geology, arranged in 15 chapters, by region, and addressed to the layman. Historical geology and physiography are stressed; economic geology and mining history are included where important, together with occasional descriptions of the vegetation. There are 24 fine photographs of typical landscape features, and 5 relief maps. This book could have been made more interesting and informative to lay readers if it had more abundant graphic illustrations of the geologic processes involved and the text would not have become so bogged down in words in some sections.

EARTH'S SHIFTING CRUST, *A Key to some Basic Problems of Earth Science; by Charles H. Hapgood, with the collaboration of James H. Campbell; foreword by Albert Einstein. Pantheon Books, Inc., 333 Sixth Ave., New York 14, N.Y.; 448 pages, 1958, $6.50.*

(Continued on page 42)

BOOKS—*Continued from page 40*

The central idea of this book is that earth's crust has shifted as a whole over the interior, mainly by forces arising from action of earth's rotation on asymmetrical polar ice caps. The mechanism has been worked out in a semiquantitative way. The assembled geological and geophysical evidence for crustal shifting is convincing. Crustal shifting is shown to offer a reasonable and integrated solution to many vexed geological problems, such as the distribution of ancient ice sheets, the changes in level of land and sea, and the origin of mountain-building forces.

Although the author is an historian of science, he displays a wide knowledge of pertinent geological literature, and he has consulted with specialists in geoolgy and in physics. The book is addressed mainly to the non-specialist, to whom it offers an informative treatment of important questions about the earth that are commonly evaded in beginning geology courses. To the geologist it offers a readable, well-documented, and stimulating discussion of basic geological problems. The geologist will not agree with all of Hapgood's ideas, but the concept of crustal shifting merits careful consideration.

J.C.B.

EDITOR'S NOTE: Some geologists who have read this book might take issue with this reviewer's statement, "The geologist will not agree with all of Hapgood's ideas . . ." They claim to agree with *but few* of his ideas.

PHYSIOGRAPHIC DIAGRAM OF THE NORTH ATLANTIC, *by Bruce Heezen and Marie Tharp, Special Paper 65, Part 1, 1958, Geological Society of America, 419 West 117 St., New York 27, N. Y. $1.50.*

This 54x27½ inch chart of North Atlantic physiographic features is produced in color. Part 2, the accompanying text, will appear in the early fall.

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